



A Weekly Journal of Pharmacy and the Drug-trade.

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CIRCULARS AND PRICE LISTS.

HOW TO DISTRIBUTE THEM TO THE DRUG-TRADE.

MANY of the best advertisers in the drug-trade have endorsed our view that it is more effective as well as cheaper to distribute circulars and price-lists stitched up in *THE CHEMIST AND DRUGGIST* than sending them singly by post. We make such insets in the C. & D. notable by the fact that we only receive them twice a year for distribution, and we ensure that they get into the hands of the right people. We would advise those who think of having an inset in our Summer number (July 27, 1901) to write to our Publisher for particulars. He will also give assistance in designing or arranging insets.

A New Book.

WE have reprinted our *DIARY* monograph, "Opening a Pharmacy" in book form, uniform as to binding with the "Art of Dispensing." The price is 1s. net, or 1s. 1d. post free. It is a most useful book for those who contemplate starting in business as chemists and druggists.

Summary.

THIS NUMBER completes Vol. LVIII.

AN INDEX to the volume is inserted between pp. 1036 and 1037.

A COPY of the Pharmaceutical Society's list of poisons is given on p. xvi.

SIR JOHN BRUNNER, M.P., has blocked the Alkali-works Regulation Bill (p. 1038).

A JUDICIAL SEPARATION from her husband has been granted to Mrs. Josephine Beecham (p. 1034).

"DEALING IN POISONS" is a subject upon which Mr. James Reid has something to say (p. 1039).

MESSRS. STEPHEN SMITH & Co. (LIMITED) have declared dividends equal to those of last year (p. 1037).

A LANOLINE LAWSUIT, in which Messrs. Evans & Sons are the defendants, has been commenced in New York (p. 1018).

MR. O. E. TREZISE, the aged chemist of Wellingborough who was charged with manslaughter, has been discharged (p. 1012).

JOHANNESBURG CHEMISTS are bitterly complaining about the military regulations as to prices imposed upon them (p. 1032).

A LIMITED COMPANY is a person after all. Two legal cases on the point are reported on p. 1034, and we comment upon the matter on p. 1032.

FRAUDULENT IMITATIONS of British proprietary articles are still common in France. We give particulars of an imitation of Henry's magnesia (p. 1032).

A WOMAN going into a pharmacy put her foot through the pavement lights in front of it and injured her leg. The pharmacist has to pay her 50l. (p. 1036).

GERMAN REFINED CAMPHOR is 1d. cheaper. Citric acid is easier. American oil of peppermint is advancing, and opium is dearer again in Smyrna (p. 1042).

OUR VIEW that dentists registered as in practice before the Act may not use the title "surgeon," or the addition R.D.S.Eng., is disputed by Mr. C. F. Forshaw in a letter on p. 1040.

A RIPLEY CHEMIST was asked for carbonate of soda, and gave bicarbonate. A summons against him under the Sale of Food and Drugs Act was dismissed, thanks to the C.D.A. (p. 1035).

APART from some remarks by "Xrayser" on the apprenticeship question (p. 1029), correspondents point out some of the difficulties and evils which arise from present conditions (p. 1040).

MR. J. I. BERNARD, Vice-President of the Pharmaceutical Society of Ireland, expresses his views on the use of protective labels by pharmaceutical retailers of patent medicines (p. 1038).

MR. H. S. WELLCOME (who was married this week) is presenting a bacteriological and analytical laboratory to the Gordon Memorial College at Khartoum, which he has recently visited (p. 1013).

WE print an illustrated report of the chemical and pharmaceutical exhibits in the Glasgow International Exhibition. On the whole, the Exhibition in these respects falls behind the 1888 one (p. 1020).

IN consequence of the warning published in *THE CHEMIST AND DRUGGIST* last week about bogus orders, a man was arrested on Saturday, and has been charged with uttering fraudulent orders. A full report and his portrait are given (p. 1033).

CARBOLIC-ACID FATALITIES through absorption by the skin are reported on p. 1012 and p. 1034. The latter case is peculiarly sad. Mr. George Cockburn, a chemist in Haswell, having had the contents of a shopround accidentally poured over him.

A MIXTURE of calcium sulphate, potassium bromide, and ammonium chloride was given by Dr. Dobbin to the Corner students last month. Dr. Dobbin gives hints regarding the analysis of such a mixture, and a method for separating silver chloride and bromide (p. 1010).

DR. ROBERTSON, speaking at the Glasgow doctors' meeting, said that English doctors must be sure that their dispensers of poisons are qualified men. We discuss the whole subject on p. 1030, especially in relation to the apothecaries' assistants' certificate, and the need for the Pharmaceutical Council taking action in the matter.

AT the annual meeting of the North British Branch of the Pharmaceutical Society, Messrs. Dott and Maben were the new members of Executive elected. Mr. Peter Boa (the Chairman) mentioned that the Branch was founded fifty years ago, and it is proposed to celebrate the jubilee (p. 1019). A correspondent, referring to the Executive election, states that some members leave their shops in charge of unqualified persons when they attend meetings (p. 1039).

Corner for Students.

CONDUCTED BY LEONARD DOBBIN, PH.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

QUALITATIVE ANALYSIS.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a *stamped and addressed envelope*, not a stamp merely) will be received up to Tuesday, July 2, and the samples will be posted on the following day.

Students' reports will be received up to Saturday, July 13. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

REPORTS.

The powder distributed to students on May 30 contained 5 parts of calcium sulphate (hydrous), 4 parts of potassium bromide, and 1 part of ammonium chloride.

The calculated composition of such a mixture is —

Ca	...	...	...	...	11.6
K	...	...	...	...	13.1
NH ₄	...	...	...	...	3.4
SO ₄	...	...	...	...	27.9
Br	...	...	...	...	26.9
Cl	...	...	...	...	6.6
H ₂ O	...	...	...	...	10.5
					100.0

Very slight traces of iron and magnesium were present as impurities.

Samples were distributed to 92 applicants, and 51 papers were received in reply.

All our correspondents were successful in detecting potassium and the sulphuric-acid radical. The failures in the detection of the other constituents of the powder were:— (a) Metallic radicals: Calcium, 2; ammonium, 7. (b) Acid radicals: Hydrobromic, 7; hydrochloric, 6. A considerable number of students failed to observe the water which was given off when the powder was very gently heated in a dry test-tube.

Although the present exercise did not involve any really serious analytical difficulties, the reports received suggest a variety of subjects for remark.

The results of the preliminary examination, as usual, afforded valuable guidance in the systematic examination.

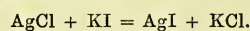
After removing the bulk of the calcium by the addition of ammonium carbonate, only a few students added ammonium oxalate to get rid of the remainder before adding sodium phosphate to test for magnesium. The result was

that numerous precipitates of calcium phosphate were obtained, and were taken to be ammonium magnesium phosphate. The powder really did contain traces of magnesium, but the quantity was exceedingly small—so small that, when operating with 4 grammes, it was only just possible to obtain conclusive evidence of its presence.

The trace of iron present in the powder was also extremely small. The apparently conspicuous evidence of the presence of iron, which many students report, must have been due either to iron present as impurity in the reagents employed (in the hydrochloric acid, for instance), or to the use of an old solution of ferrocyanide in testing for it.

The best mode of testing for ammonium salts has repeatedly been expounded in this column, but the comparatively rough process by boiling the substance under examination with solution of potassium hydroxide and observing whether the odour of ammonia is perceptible or not is often employed, and, as in the present exercise, it occasionally fails. The most delicate test consists in grinding some of the dry powder with soda-lime, moistening the mixture on a watch-glass with one or two drops of concentrated solution of potassium hydroxide, and at once inverting over it a second watch-glass, to the inner side of which a strip of moistened red litmus-paper has been attached. The paper is turned blue after a few minutes if even very small quantities of ammonium salts are present.

We note with much concern the widespread employment of 1-in-20 ammonia solution as a reagent for the supposed separation of silver chloride from silver bromide. The method is most unsatisfactory and delusive, since the difference in solubility of the two salts is quite insufficient to form the basis of a delicate separation, and we counsel our correspondents to abandon it entirely. As an alternative method for the detection of silver chloride in the presence of silver bromide or iodide, or both, we suggest the following, which is little known but works well:— Cyanide having been proved absent, completely precipitate the halogens by adding excess of silver nitrate in presence of nitric acid, and wash the precipitate once or twice by decantation. Then pour upon it 1 c.c. or less of a very dilute solution of potassium iodide (1 in 1,000), add a few drops of dilute nitric acid, digest in the cold for an hour with occasional shaking, and filter. Divide the filtrate into two parts, and add silver nitrate to one part and a drop of chlorine-water to the other. If the silver nitrate produces a white precipitate and the chlorine-water does not liberate either bromine or iodine, then, in the known absence of cyanide, the original precipitate contained silver chloride. The action of the potassium iodide on the silver chloride is represented by the equation—



If there is enough silver chloride present in the original precipitate, all the potassium iodide is used up, and it is the potassium chloride formed which gives the white precipitate on the addition of silver nitrate. If the chlorine-water liberates bromine or iodine, this shows (when not more than 1 c.c. of the 1-in-1,000 potassium iodide was used) that distinctly less than a milligramme of silver chloride (and very probably none) was present. In careful and practised hands this test can be made to reveal the presence of extremely small quantities of silver chloride.

A number of students attempted to recognise chlorine in presence of bromine when liberated by manganese peroxide and sulphuric acid. Reliable conclusions cannot be drawn from the observations made by this means. Testing for traces of nitrate, in the known presence of bromide, was also delusive in some cases.

PRIZES.

The First Prize for the best analysis has been awarded to
JOHN G. MURDOCH, c/o Wilkinson & Simpson (Limited),
Newcastle-on-Tyne.

The Second Prize has been awarded to

W. MAXWELL, c/o Mr. W. M. Alexander, chemist,
Kelso, N.B.

First Prize.—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Second Prize.—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

MARKS AWARDED FOR ANALYSES.

John G. Murdoch (1st prize)	99	T. B. Nichol	85
W. Maxwell (2nd prize)	97	Alford Lines	84
J. D.	96	Omega 1st	84
James Robert Stott	96	S. D. K.	84
Hercules	95	Crucifer	82
Alex. T. Hope	95	W. H. P.	81
J. M.	95	Nemo	80
J. W. P.	95	Pinus Sylvestris	80
E. M. Leese	94	Iodoform	79
Parvus	94	H. S.	78
H. M. Winton	94	Sigma	78
Hawthorn	93	Arab.	76
Progress	93	P. C. Brett	74
Anilin	92	Tuty	72
J. W. C.	92	Lucifer	70
Yaxham	92	Belladonna	67
Balaustia	91	E. G. Fuller	67
Gemina	91	Lubricateur	66
Phenol	91	J. R. Huck	65
T. R. B.	91	Lotus	62
Erwell	90	Nev	62
Kent	90	W. M. A.	60
Richardus	90	W. T. H.	59
Ardowa	85	Statim	57
Brooke	85	L. J.	51
		Sulorac	42

TO CORRESPONDENTS.

Special Memoranda, suggested by this month's reports:—

1. Make sure that the traces of iron which sometimes appear to be present in mixtures do not arise, chiefly or entirely, from the acids employed in preparing the solutions.

2. Before testing for potassium, be careful to completely drive away, by ignition, any ammonium salts present; and use a saturated solution of sodium hydrogen tartrate instead of tartaric acid to precipitate the potassium as potassium hydrogen tartrate.

3. Do not attempt to separate silver chloride from silver bromide by means of dilute ammonia. The method is not one by which reliable results can be obtained.

4. Do not try to detect traces of nitrate, in presence of bromide, by means of ferrous sulphate and sulphuric acid. The indications are not conclusive in such a case.

5. Read last month's Special Memoranda (*C. & D.*, May 25, page 819).

J. D.—You do not appear to have tested for nitrate, although the preliminary examination led you to regard its presence as possible.

JAMES ROBERT STOTT AND MANY OTHERS.—Carefully note the points referred to in the general remarks and Special Memoranda.

ALEX. T. HOPE.—Note that manganese peroxide and sulphuric acid liberate bromine, as well as chlorine, and that bromine also bleaches vegetable colouring-matters.

HAWTHORN.—When excess of ammonia was added to a moderately concentrated solution of the powder in hydrochloric acid and the mixture was warmed, a precipitate of calcium sulphate separated. It was probably this precipitate that you mistook for aluminium hydroxide.

PROGRESS.—You were mistaken in supposing that you recognised the odour of chlorine after driving off bromine by heating the powder with sulphuric acid. As a matter of fact, chlorine was not liberated from the powder by sulphuric acid alone. The evidence obtainable by testing for nitrate in a substance that has been ignited is not necessarily of any value.

BALAUSTIA.—You should have made an attempt to prove whether chloride was present or not. Nitrate could have been tested for after the removal of the bromide by means of silver acetate or sulphate. There was no difficulty in proving the presence of potassium in a small quantity of the powder (after separating the calcium and driving off the ammonium salts) by precipitating it as potassium hydrogen tartrate. Sodium hydrogen tartrate is a better reagent for this purpose than tartaric acid.

T. R. B.—We have been unable to obtain the metallic film you mention, and can only suppose that some foreign matter was present in your ignition-tube.

RICHARDUS.—Your surname is the only word in your report which is not plainly legible. It is a pity that this distinction should apply to so important a word.

ARDOWA.—The "slight black ring" which you attributed to the presence of nitrate was due to bromine.

BROOKE.—You will perceive from the quantitative composition of the powder that the sulphuric-acid radical was something more than an impurity.

T. B. NICHOL.—The presence of much ammonium chloride greatly interferes with the precipitation of calcium as carbonate by ammonium carbonate. Your failure to obtain more than a slight precipitate was probably due to this cause.

OMEGA 1ST.—See reply to Alex. T. Hope.

NEMO.—You do not appear to have tested for magnesium.

PINUS SYLVESTRIS.—We cannot account for your failure to detect calcium. Practise the alcohol separation with known mixtures until you can use it with ease and certainty.

IODOFORM AND W. T. H.—Ammonium salts must be completely driven off by ignition before testing for potassium by means of chloroplatinic acid.

SIGMA.—Tartaric acid could not produce the precipitate you describe as having been obtained in a hydrochloric-acid solution of the original powder.

P. C. BRETT.—The precipitate produced by lead acetate in the portion of the solution for acids acidulated with acetic acid consisted of lead sulphate.

TUTY.—You appear to have ignored the possibility of chloride being present as well as the bromide which you detected.

LUCIFER.—You give no account of how you tested for most of the acid radicals, so that it is impossible to say how you failed to detect the large quantity of bromide present.

BELLADONNA.—The supposed odour of acetic ether was simply that of S.V.R.

J. R. HUCK.—The supposed slow charring which you report as observed on heating the powder with sulphuric acid was simply the liberation of bromine from the bromide present. Please give your address in any future reports.

LOTUS.—You have omitted the "guarantee of good faith." Please conform to the rules printed at the head of the "Corner," if you desire your reports to be read.

NEV.—You omit to say what you did with the portion of the powder which did not dissolve in water. See reply to "Belladonna."

W. M. A.—Your examination for acid radicals was of a very rudimentary character. See reply to "Nemo."

STATIM.—The precipitate you obtained on adding calcium chloride to the sodium-carbonate extract, and mistook for calcium tartrate, consisted of calcium carbonate. See reply to "Tuty."

L. J.—In any future reports please remember to give a summary of the constituents you detect; you omitted the summary this time.

SULORAC.—Many of the conclusions in your report are based upon much too slender evidence. You should make a careful and systematic study of the behaviour of known single substances and easy mixtures.

New Books.

Addyman, F. T. *Practical X-ray Work*. 8 $\frac{1}{2}$ × 5 $\frac{1}{2}$. Pp. 207 52 illust. and 12 plates. 10s. 6d. (Scott, Greenwood.)

Carpenter, W. B. *Microscope and its Revelations*. Eighth edition. By W. H. Dallinger. 22 plates, nearly 900 engr. 9 × 5 $\frac{1}{2}$. Pp. 1202. 28s. (Churchill.)

Henslow, G. *Poisonous Plants in Field and Garden*. 6 $\frac{1}{2}$ × 4 $\frac{1}{2}$. Pp. 190. 2s. 6d. (S.P.C.K.)

Holland, C. *How to Take and Fake Photographs*. 15 illus. 7 $\frac{1}{2}$ × 4 $\frac{1}{2}$. Pp. 124. 1s. (Pearson.)

English News.

Local Newspapers containing marked items of news interesting the trade are always welcomed by the Editor.

Brevities.

The office and warehouse employes of Needhams (Limited), chemists and druggists, Huddersfield, had an excursion to Bridlington on June 22.

“Off” is the word to apply to the Western Chemists’ Association river-excursion. The Secretary informs us that this is owing to insufficient support.

At Leamington on June 19, Wm. Edward Davis was given a month’s hard labour for stealing a bicycle, value 7*l.*, the property of Edgar Stabler, a chemist’s assistant.

The Camberwell Board of Guardians have accepted the tender of Messrs. Davy, Hill & Son, Yates & Hicks, of 64 Park Street, Southwark, S.E., for the supply of drugs at a discount of 26 per cent. off list prices.

A Bovril sand-design competition is to take place at Scarborough on July 20. Five prizes (the first of the value of 30*s.*) are offered for the best designs, and two hours will be allowed to complete each design.

The annual outing of the Bournemouth and District Chemists’ Association was to have been held on June 20, and an excursion to the New Forest arranged. Owing to the inclement weather the outing was postponed.

The Council of the Society of Arts have awarded the Society’s silver medal to Major Ronald Ross, F.R.S., for his paper on “Malaria and Mosquitoes,” and Professor Raphael Meldola, F.R.S., for “The Synthesis of Indigo.”

The Walsall Board of Guardians have appointed Messrs. G. Elliott & Son, wholesale chemists, 42 Park Street, Walsall, to supply trusses at 2*s.* 6*d.* and 2*s.* 11*d.* each, olive oil 5*s.* per gal., and cod-liver oil 6*s.* per gal. to the workhouse.

The Great American Aloe or Century Plant is now flowering in the East of London in the Victoria Park. When the bloom is full out, which will be about the end of next month, the aloe will have a gorgeous crown of golden flowers about 5 feet high.

In these hot days Mr. C. E. Perks, the Liverpool person who sends piteous letters to chemists, is eager to get money to buy coats amongst other things. He wants it by return-post, too, although the letter is in the terms he has been using for six years or more.

A conference of representatives of Chambers of Commerce in several leading manufacturing districts of the Kingdom was held at the Manchester Chamber of Commerce on June 25, for the purpose of considering the whole question of patent-law reform, including the report of Sir Edward Fry’s Departmental Committee.

A sailor, named George Seymour, was sentenced to fourteen days’ hard labour at Winchester on June 22, for stealing a bottle of scent, value 1*s.*, from the shop of Mr. William D. Gibb, chemist, 31 High Street, Winchester. Mr. W. H. Bunney, an assistant to Mr. Gibb, observing the prisoner pocketing the bottle, promptly closed the door and kept him from escaping.

Lucy Ann Ness, who for nine years has been employed with Messrs. Lofthouse & Saltmer, wholesale druggists, Hull (C. & D., June 15, page 943), was again charged at the Hull City Police-court on June 21 with stealing five bottles of perfume, six bottles of extract of herbs, and other articles, the property of the firm. Evidence having been given, prisoner was again remanded.

At a dinner given last week at Liverpool to a number of civilian doctors returned from service in South Africa, Dr. Craig-Dun said he had to sail in charge of 550 officers and men without a drug or a bandage. When they got into action their supply of dressings ran out within forty-eight hours, and they had to tear up the sheets for dressings, the only food for the sick being bully-beef and biscuits. He stated further that “the impression left among the medical

men at the front was that the Hospitals Commission was a roaring farce.”

A petition for divorce was heard before Mr. Justice Barnes on June 26, by a Mr. Anger, of Brixton, traveller for a firm of manufacturing chemists, on the ground of the alleged misconduct of his wife with the son of the landlady in whose house petitioner and respondent lodged. The respondent denied misconduct, although it had been admitted by the co-respondent, against whom she was bringing an action for libel. The mother of the wife gave evidence as to the violent conduct of the petitioner towards his wife after marriage. The hearing was adjourned.

The Shipment of Carbolic Acid.

The Board of Trade inquiry held at Liverpool last week, in regard to the accident on board the s.s. *Ptarmigan* (reported in our issue of January 26, page 109), was finished on June 21. The steamer, which was sailing from Liverpool to Rotterdam, had included in her cargo 48 barrels of crude carbolic acid in hardwood oil-casks. Heavy weather was experienced, and the barrels broke loose, some of the acid escaping. Three seamen who went to secure the barrels were so badly burned that they died almost immediately, a coroner’s jury at Falmouth attributing death to the “fumes of carbolic acid.” At the Board of Trade inquiry evidence was given by Mr. F. G. Holmes, managing director of Kurtz (Limited), of Litherland, who manufactured the acid. Mr. Holmes considered that the acid would eat through iron drums (recommended for storage by the coroner’s jury) quicker than through wood. Dr. Dupré said he had tested samples of the acid, and it gave off no measurable quantity of fume, and he could not find any trace of poisonous gas. There was no case on record of death from fumes of carbolic acid. In the present case he believed death had resulted from the absorption of the acid through the skin. Absorption would have much the same effect as swallowing the liquid, causing inflammation of the kidneys, and the sufferer dying from shock. In giving the judgment of the Court, the Stipendiary expressed the opinion that, in view of the peculiar action of carbolic acid, special care should be taken by all concerned. The casks in which it is shipped should be thoroughly sound and fitted to withstand the risk of bad weather. Care should also be taken as to the manner and place of stowage, and those who are called upon to handle such cargo should be warned of the special danger incurred by absorption of the acid through the skin.

Filtered Air.

At the weekly meeting of the London County Council on June 25, the Bridges Committee reported that their attention had been directed to the expediency of experiments being made with the object of eliminating, if possible, the deleterious carbonic-acid gas from the air supplied to the Greenwich Tunnel. After careful consideration of the various schemes they decided to try the effect of filtering the air through boxes filled with a strong solution of caustic soda, and, although the practical construction of the apparatus for this was somewhat difficult to arrange and expensive to work, the results had been satisfactory, and there had been a marked improvement in the purity of the air. Previous to the establishment of the purifier the amount of carbonic acid in the compressed air at the shield where the men were working was on the average of nine analyses, 0.148 per cent., as against 0.147 per cent. in the engine-room. After the purifier was in operation the percentage of carbonic-acid gas at the shield was, on an average of five analyses, 0.086 per cent., as against 0.0610 per cent. in the free air of the engine-room.

The Strychnine for Cough-mixture Case.

At the Northamptonshire Assizes on June 21, before Mr. Justice Wright, Octavius Edwards Trezise, chemist, Wellingborough, was charged with the manslaughter of Agnes Robina Johnson. The accused, who was very feeble, was accommodated with a chair in the dock. He pleaded guilty, and the prosecuting solicitor said prisoner had carried on business as a chemist since 1837, bore an excellent character, and was universally respected. In the Calendar prisoner’s age was put as 65, but he was really nearly 80 years of age. Mr. Adkins, for the defence, said, owing to Mr. Trezise’s

great age, he had overlooked the importance of the recently passed regulations as to the storage of poisons, and thus the mistake had occurred. Dr. Clarke, J.P., Wellingborough, who had known Mr. Trezise for forty years, spoke to his invariable accuracy and high character. His Lordship said it was a very painful case. Accused was a chemist who had practised with credit for a great number of years, and had now attained a great age, and, so far as could be seen, this was the one single mistake or act of negligence which had produced any evil effects during the whole of that time. It was evident from the statements of the learned counsel and the only witness it had been necessary to call that his character was of the highest. His Lordship was told that the prisoner had relinquished his practice—certainly a very necessary step at his age, and with his failing eyesight. Under those circumstances, great as was the necessity of protecting people—and especially poor people—against negligence and the neglect of the proper regulations of the Pharmaceutical Society, his Lordship would be pressing the matter too far if he dealt with this case with any severity. On the whole, his Lordship thought he would not be doing wrong if he released the accused on his recognisances to come up for judgment if called upon. On an undertaking being given that he would not resume practice, accused was then released on his own recognisances in 10%.

Gordon Memorial College at Khartoum.

The Hon. George Peel, Hon. Secretary of this College, states that the King has consented to become the patron, and draws attention to the fact that Sir Reginald Wingate, in his report on the progress of the building and educational arrangements, "refers to the handsome offer of Mr. H. S. Wellcome, of the firm of Messrs. Burroughs & Wellcome, to present a bacteriological and analytical laboratory to the College. Mr. Wellcome, who has recently returned from the Soudan, informs me that this gift has been made in view of the considerable possibilities which he foresees for technical education in that region, and that the laboratory will be specially adapted to the requirements of the population and fitted with every modern appliance." Sir Reginald Wingate's own reference to the matter is in the following terms?—

I think it not impossible that wealthy visitors who find their way to Khartoum during the winter months, and who visit the College, may be willing to render further help. For example, I have just definitely heard from Mr. Wellcome, of the firm of Messrs. Burroughs & Wellcome, that he intends to present the College with a bacteriological and analytical laboratory. You can readily imagine what a boon this will prove in many directions, such as scientific and agricultural research, criminal investigation, analysis of metals, &c. If any one at present cared to intimate a gift of school-furniture, or desired to furnish a room for a museum of Soudan products which we propose to house in the College, it will be extremely acceptable.

Birmingham Notes.

Mr. A. W. Gerrard was last week erroneously given as Treasurer to the Midland Pharmaceutical Association. Mr. J. C. Mackenzie was re-elected to that office; Mr. Gerrard is a Vice-President.

Chemists are specially warned of emissaries who are calling on them for Condry's crystals, Beecham's pills, and suchlike articles, to be sure that potassium permanganate and simple aperient pills are not supplied. There is an epidemic of this sort of thing in Birmingham.

The chemists of Bristol Street have joined in a general protest against the noise and inconvenience which are caused by the new system of electric traction on this route, and the City Council have risen to the occasion and asked for a betterment. It is stated that business is only with difficulty transacted.

The young Italian Marconi usually receives the credit for any value appertaining to wireless telegraphy, but it will be of interest to state that the discoveries of our Varsity Principal (Dr. Oliver Lodge, F.R.S.) in that direction and his work on the "coherer" form the basis of all systems. The U.S. Government granted a patent for his work accomplished in 1894, and hence antedates Marconi's method by two years. It is rumoured that a gigantic company to work the Lodge patent is *en tapis*.

The Birmingham Board of Guardians resolved that, "in view of the enormous population within the area of the Board, and a large number of cases of tuberculosis they are called upon to deal with annually, and the extremely undesirable mode of present treatment, a special committee should be appointed to take into consideration the desirability of erecting for its own use, or in conjunction with the adjoining Boards of Guardians or public bodies, a sanatorium for the reception of advanced cases of phthisis and for the treatment of early cases of tuberculosis with a view to its speedy cure."

Satisfied with their Dispenser.

At a meeting of Burton-on-Trent Board of Guardians on June 20, a discussion took place respecting the poisoning of three inmates of Burntwood Asylum from an overdose of chloral (see *C. & D.*, June 22, page 979). Mr. Thompson and Mr. Askew, who attended the inquest on behalf of the Guardians, stated that the sleeping-draughts were not given indiscriminately but only by the absolute order of the medical officer. Mr. Hood, however, expressed dissatisfaction with the inquiry, and complained of negligence in the dispensing. He proposed that the County Council should be approached by the Board with a view to the appointment of a qualified dispenser at the asylum. Mr. Thompson replied that he was told at the inquiry that Dr. Farquharson was fully qualified in every respect. The matter of the appointment of a dispenser had been under the consideration of the County Council, and that body had not thought such a step desirable. The jury at the inquest had also considered the question, and he thought the resolution proposed by Mr. Hood unnecessary. Mr. Hood, after that expression of opinion, withdrew his motion.

Don't like the Suggestion.

The Dolgelly Board of Guardians have adopted the report of a committee which had been appointed to deal with the subject of the supply of "expensive" medicines to paupers. The committee reported that they were unable to recommend the suggestion offered by the Local Government Board inspector to the effect that the Board "should contract with a chemist for the supply of expensive medicines." The committee gave as their reason the scattered character of the union district, and the fact that as many of the paupers (outdoor) lived away from the immediate reach of the chemist much delay would ensue in the making up of prescriptions. The committee further reminded the Guardians that the Local Government Board last year refused sanction to the proposal to contract with the medical officer for the supply of medicines.

Cricket.

Boots' C.C. (Sheffield) *v.* Sheffield Telegraph C.C.—Played on June 20, the Telegraph team winning by 13 runs. Scores: Boots', 35; Telegraph, 48. [Last week's report should have read Greenfield took 4 wickets for 12 runs for Boots.]

London College. Majors and Staff *v.* Minors.—An interesting and pleasant game between teams representing the above branches was played at Nunhead on June 22. The Minors scored 56 (S. P. Jones 23). The Majors, however, just managed to pass this score by two runs, thanks to a stand for the last wicket by Mr. H. Wootton and Gibbins (15). In the second innings the Unqualified men put together 69, to which the Qualified contingent replied with 56 for 3 wickets (Barlow 24 not out, and Cole 17).

A New London Preserve-factory.

The neighbourhood of Green Walk, Bermondsey, on Tuesday afternoon, June 25, was astir with curiosity and excitement. All the matrons of the vicinity, with their progeny in varied degrees of cleanliness, were keenly interested in the gathering of fair women and (more or less) brave men, who had congregated to officially inaugurate the opening of Mr. W. P. Hartley's new jam-factory. The products which the immense factory (covering two acres, and capable of yielding an output of about 400 tons of preserves per week) is intended to produce appeal particularly to the youthful mind, be it of Bermondsey or Ballarat, as was pointed out by Mr. H. C. Cust, M.P., who declared the factory open. Mr. Cust, in the course of his witty address, alluded to Mr. Hartley's commendable treatment of his workpeople

in his large works at Aintree, Liverpool, where a model village for his employes is erected beside the factory, and where a sum of 28,600*l.* has already been distributed amongst the workers as a result of a profit-sharing scheme introduced by Mr. Hartley some years ago. He joined with the Mayor of Bermondsey in welcoming such a model employer as Mr. Hartley to their midst. Mr. Hartley, amongst other things, said the preserves and marmalade manufactured by his firm are made direct from fresh fruit either grown on the firm's own farms or grown especially for them. All the raspberries and strawberries used are English grown, and their products "are made from fresh fruit and lump-sugar, with no other ingredients whatever." Mr. W. Hartley, jun., conducted a party over the building, explaining in detail the process of manufacture. The most noticeable features are the means taken for the ensurance of absolute cleanliness and the labour-saving devices employed. There are six floors, served by five electric lifts, and the lighting is by electricity throughout.

The Painter's "Plaster."

An adjourned inquiry at Ebbw Vale into the circumstances of the death of a child 21 months old was resumed on June 19. An adjournment had been granted for a *post-mortem* examination to be made, and for the attendance of John Rudman, who had supplied "plasters" which were applied to an injury to the child's knee. Rudman said he was a painter by trade and a "plasterer." The child was brought to him for cure, and he supplied an ointment made of olive oil, ground ivy, and elder-leaf, which was spread on a strip of linen and applied to the wound. He had found that this ointment would kill inflammation; the recipe was given him by his aunt fifty years ago. Dr. J. W. Davies, who made the *post-mortem*, said deceased was predisposed to convulsions, and the injury to the knee would be followed by such severe constitutional disturbance or shock as would result in convulsions. The wound required antiseptic treatment. These plasters, though probably harmless, were not antiseptic. He did not think death was accelerated by the use of the plasters. Dr. Bharadwaja said the plaster contained animal grease, sulphate of iron, and traces of copper and lead, though not in sufficient quantity to injuriously affect the wound. Rudman (recalled) stated that he used sulphate of iron, but not in that ointment. He had it with a powder and other things in a pot, and probably the traces got into the plaster accidentally. The Coroner strongly deprecated what he termed the practice of "ignorant quacks," and the foolishness of people in dispensing with medical treatment, and the jury found that death was due to the accident.

Satirical—or Mixed?

In discussing a proposal to provide the inmates of Billericay Union with New Zealand mutton, the Rev. W. J. Benson, one of the Guardians, thought they ought to stipulate that carbolic acid should not be used in preserving the meat. Mr. Finn said he had never heard of carbolic acid being used for such a purpose, but Mr. Benson rejoined that he would back his taste against Mr. Finn's professional knowledge.

A "Non-poisonous" Disinfectant.

Mr. A. H. Hebbert (Deputy Coroner) conducted an inquiry at Kidderminster Workhouse on June 21 into the circumstances attending the death of an inmate named Agnes Morley, or Johnson, aged 64. The woman, it appeared, drank a quantity of Lawes' disinfectant-fluid, diluted to a 1-in-40 solution, and the woman died a few minutes after taking it. On the drum containing the fluid was a label with the words "Non-poisonous" in large letters, and Dr. Moore said the makers described it as "non-poisonous and perfectly harmless." The label contained a great mass of printed matter, and the last paragraph set forth that the disinfectant was non-poisonous if diluted according to the directions. The Coroner expressed the opinion that the label was a contravention of the Board of Trade regulations. The jury returned a verdict of suicide, and requested the Coroner to write to Lawes' Chemical Company, the makers of the disinfectant. Mr. Hebbert promised to do so, and added that he felt it his duty to report the matter to the Board of Trade.

Trade Trips.

The annual outing of the employes of Messrs. Stone & Son chemists, of Fore Street, Exeter, took place on June 15. The party journeyed to Dulverton by rail, and then had an enjoyable drive over Exmoor to Minehead, where dinner was served at the Plume of Feathers Hotel. The chair was occupied by Mr. E. F. Stone, and the toast of "Success to the Firm" was heartily drunk. The party afterwards returned to Dulverton, where tea was partaken of at the Red Lion Hotel, the party afterwards returning to Exeter.

The employes of Messrs. James Townsend & Son, medical printers, of Exeter and London, held their annual outing on June 22, nearly 200 going by special train from Exeter to Beer Alston to take a steamer trip from Calstock up and down the Tamar. The party arrived at Plymouth in time for dinner at the Corn Exchange. The senior member of the firm (Mr. J. Townsend) presided, the vice-chairs being occupied by Mr. W. Townsend and Mr. T. J. Taylor, the senior representative. The loyal and patriotic toasts having been honoured, Mr. Taylor proposed "Our Worthy Employers and their Families, and Prosperity to the Firm." He said the number which went to the firm's first outing at Plymouth twenty-seven years ago was one-third of the total present that day, and alluded to the cordial relations which existed between employers and employes. Mr. J. Townsend and Mr. W. Townsend responded, and the Chairman gave "The Employes," to which Mr. Blackmore, foreman of the letter-press department, responded. Mr. A. D. Breeze, Secretary of the Plymouth Mercantile Association, gave all present a guide to the town.

Fires.

The premises of Messrs. Robinson & Sons, box-manufacturers, Brampton, near Chesterfield, were the scene of a fire on June 22, the contents of one large room, comprising cardboard tubing for manufacturing into pill-boxes, being destroyed.

An extensive fire occurred on Tuesday night at the warehouse of Messrs. Brook, Parker & Co. (Limited), wholesale druggists, Feversham Street, Bradford, and resulted in the greater part of their stock being burned or spoiled by water, and a total loss of stock estimated at about 3,000*l.* Messrs. Brook, Parker & Co. employ about seventy workpeople, and the last of these were leaving work about 6 o'clock when the watchman, in making his first round, discovered a fire on the top floor. The fire-brigade were soon on the spot, but, in consequence of the fact that the premises were so full of wooden partitions and shelves, the fire spread very rapidly indeed. There was a fierce conflict with the flames for upwards of an hour, and the fire was confined to the top floor, but stock on the two lower floors was damaged by water. The stock affected by the fire was largely made up of botanic drugs in bales. Happily, the highly inflammable liquids were on the ground floor, and were not touched by the fire. A good deal of the stock from the lower part of the premises was removed into the street as a consequence of the efforts of the employes, who worked like Trojans. The damage is wholly covered by insurance.

The Cooks of Bow and the Holborn Cooks.

On Saturday, June 22, Messrs. Edward Cook & Co. (Limited), the soap-specialists, entertained about one hundred of their staff, agents, and travellers to dinner in the Throne Room of the Holborn Restaurant, Mr. William Cook presiding. He was supported by Messrs. S. Hall, T. Alex. Cook, E. Meall Cook, S. Godfrey Hall, W. Martyn Cook, and E. Leonard Cook. After dinner and the loyal toasts, the Chairman proposed "The Offices and Works," and in the course of his remarks spoke of the happy manner in which the year's work had been carried out both in the offices and in the factory. Great alterations had been made in the works, part, owing to a fire, having been rebuilt, and new offices, laboratory, and stock-rooms were in course of construction. He trusted that at their next annual dinner they would have to chronicle a record year of unqualified success. (Cheers.) After the toast had been responded to by Mr. H. Attwell (office) and Mr. S. Godfrey Hall (works), Mr. T. Alex. Cook proposed "The Travellers and Agents." He said the directors had confidence in their representatives,

and knew their representatives had confidence in the company, and that when they were selling "Cook's soap" they were selling a good article. He specially referred to the great increase in the sale of toilet-soaps, the "Riviera" and the "Throne" having become household words. Mr. W. Waller and Mr. R. Somerville responded, and Mr. Edward Hughes then proposed "The Company," which was responded to by Mr. Samuel Hall. Other toasts followed, and a delightful evening was concluded with "God save the King."

Society of Arts.

The annual general meeting was held on June 26, at the Society's House in the Adelphi, when fifty-seven members were elected, this making the total elected during the present session of the Society 376. The report of the Council was read by the Secretary. It summarised the proceedings of the Society during the last twelve months, giving an account of the various papers which had been read, and the work of the Society's different committees. On the occasion of his resignation of the Presidency of the Society, the Council presented to the King the Society's Albert Medal. During the year a committee of the Society has produced an important report on leather for bookbinding, which will be published in a few days. Over 15,000 candidates entered for the Society's annual examinations, the results of which are now in course of issue. At the conclusion of the reading of the report, the result of the ballot for the election of the new Council was announced, the President for the coming year being Sir Frederick Bramwell, Bart., F.R.S.

Rat-culture.

Dr. Walford reported the results of some experiments in rat-poisoning to the Cardiff Health Committee on June 25. Some time ago the committee had been urged to try a method of exterminating rats by Davy's "Contagious Virus," which, it was said, would produce an epidemic amongst them and kill all the rats in the place. Dr. Walford had obtained some of the poison from the Pasteur Institute in Paris. A lot of rats had been fed on the poison, and they were all as well as possible, and none the worse for it. In other places similar experiments had been made, with only slightly better results.

Poisonings of the Week.

A considerable falling-off in poisoning fatalities is observable this week. Since our last report only eight fatal cases are recorded. Laudanum and carbolic acid caused two deaths each, while liniment of aconite was taken by a Birmingham woman in mistake for medicine, and a 2-year-old boy at Manchester, named Vickers, obtained possession of a bottle containing solution of atropine, and drank the contents, with fatal results. At the inquiry into one case, Mr. Sidney Smelt, the Manchester Coroner, said all poisons should be locked up in a house. What was the use, he said, of a label to a child or an illiterate person? He would make it a criminal offence for anybody to put carbolic acid or any other poison in a ginger-beer bottle. A Juryman: A chemist is to blame for that. The Coroner: No; he is not. People put poison into that sort of bottle themselves. They may have a little carbolic acid given them. A Juryman: But if the bottle is labelled? The Coroner: Label or no label, it should be made a criminal offence.—In a case of laudanum-poisoning at Swansea evidence of sale was given by Mr. John Davies, chemist, 15 Oxford Street, Swansea, who said deceased (a young butcher named Hopkin) asked for threepennyworth of laudanum to give to a horse that was suffering from gripes, and witness sold him $\frac{1}{2}$ oz. It was not necessary for the purchaser to sign the poison-book, as laudanum was not in the first part of the schedule. A Juror: Was it more than the usual quantity for an adult to take? No. Another Juror: If you sold laudanum for toothache, would it be diluted? No; certainly not. I should be liable to be fined if it was. In summing up the Coroner (Mr. J. Viner Leeder) suggested that it would be better if chemists "in their own interests," when they sold poison, got the purchaser to sign the poison-book, and the jury endorsed the Coroner's suggestion.—The unscheduled poisons employed were hydrochloric acid and a "non-poisonous" disinfectant mentioned elsewhere.—Un-

successful poisonings resulted from taking matches, oxalic acid, and belladonna liniment respectively, and a young Wolverhampton lady is in the hospital suffering from the effects of a dose of hydrochloric acid taken by inadvertence.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Personal.

Mr. Jacob Orr, druggist, Armagh, has been elected Chairman of the Local Rural Council and President of the Board of Guardians.

Mr. E. F. Hanrahan, L.P.S.I., apothecary to the South Dublin Union, has received an increase of 15% per annum to his salary.

Refitted.

Mr. G. D. Beggs, pharmaceutical chemist, Dalkey, the President of the Pharmaceutical Society, has had his premises thoroughly refitted by Messrs. Evans, Sons & Co., 56 Hanover Street, Liverpool. It is a great improvement on the old style of fitting, and B.P.C. visitors may be able to get from it a few points in pharmacy-furniture.

Disputed Balance.

There is a dispute between Messrs. Leslie & Co., Bride Street, Dublin, and the Boyle Guardians in reference to the payment of 19% 14s. 10d., the balance of their account. The Clerk to the Guardians said he had struck out all items which the medical officers did not certify as having been received, certain goods overcharged, and goods returned. Further consideration of the matter was deferred.

Doctors at Law.

In the Dublin Law Courts on June 20, an application was made by Dr. Yorke to change the venue of an action brought by him against Dr. Maguire from Dublin to Longford. The action was for libel, and arose out of a report the defendant wrote, on the instruction of the Local Government Board, about a poisoning-case. The Court refused the motion, with costs.

The Conference.

The arrangements of the Local Committee at Dublin are proceeding in a most satisfactory manner, and the results are encouraging those at the head of affairs to further exertions to make the visit to Ireland up to any previous record. The Local Committee has been increased, and is now divided into three sub-committees:—(1) Transport—Messrs. J. Smith (Chairman), J. T. English, H. P. Grimes, H. Conyngham, and T. White. (2) Commissariat—Messrs. H. P. Grimes, T. White, and F. J. Gill (Hon. Secretary). (3) Music—Messrs. F. J. Gill, P. Kelly, T. White, Dr. J. A. Walsh, and Dr. J. C. McWalter. The Chairman, Vice-Chairman, Hon. Secretary, and Treasurer (Messrs. Wells, Boyd, Bernard, and Beggs respectively) are *ex-officio* members of all the sub-committees.

Guardians' Drugs.

At the last Tobercurry Board of Guardians' meeting the following report of Sir Chas. Cameron on drugs supplied to the Union by Mr. Boyles, of Sligo, was read. Tincture of opium and compound tincture of camphor were returned as correct and good, whilst a sample of tincture of belladonna showed extractive slightly over the average, but could not be further examined owing to the smallness of the sample.

At the Carrick-on-Suir Guardians' meeting last week a letter was read from the Local Government Board, asking that a copy of the analyst's report on drugs supplied to the Dispensary be forwarded to the contractor for an explanation as to the deficiencies in the liquid of ergot and syrup of phosphate of iron, quinine, and strychnine. The Local Government Board also suggested that the supply of these drugs in hand be returned to the contractor, to be replaced by drugs of standard quality at his expense. It was ordered that a copy of the letter be sent to the contractor.

At the last monthly meeting of the co. Tipperary Infirmary (Cashel) Governors a letter was read from the medicine-contractors—Messrs. John Clarke & Co. (Limited)—regarding the ipecacuanha-wine analysed by Sir Charles Cameron, in which the contractors took exception to the analyst's statement that "the amount of extract is low, evidently because the wine used was very light." They submitted that the wine analysed fully complied with the tests laid down in the British Pharmacopœia, and the amount of extract had nothing to do with the therapeutic value of the drug. Dr. Wood (apothecary) said that the drug was deficient in the extract. Dr. Laffan said that Sir Chas. Cameron's certificates were often wrong; in this matter, however, the extract had nothing whatever to do with the value of the article. It was decided to mark the document "Read."

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Accidental Poisoning.

At Uphall, on June 24, a little girl complained of feeling ill, and her mother gave her what she thought was a little port wine. Alarming symptoms supervened, and it was then discovered that a poisonous liniment had been administered in mistake. The child died before medical aid could be obtained.

For the Encouragement of Chemical Research.

The late Mr. Thomas Graham Young, of West Calder, left personal estate amounting to 74,345/. Amongst the bequests is one of 3,000/. to the Technical College, Glasgow, for the purpose of establishing exhibitions in connection with the chemical laboratory thereof, to be called the "James Young" Exhibitions. After providing for certain bequests to relatives and friends, the residue of his estate is to be applied to educational purposes, especially those allied to chemistry. Before his death Mr. Young agreed to contribute 10,000/. to the building fund of the new Technical College.

Edinburgh Chemists', Assistants', and Apprentices' Association.

The first botanical excursion of the season in connection with this Association took place on June 14, at Colinton. About forty members and friends attended, and good weather prevailed. Field-work proceeded briskly in the dell and along the railway-embankment till the light failed, and then the company wended their way back to town—some by rail from Slateford, and others by road and car. Many specimens were collected. When darkness put a stop to practical work a cordial vote of thanks was awarded to Mr. Rutherford Hill, who conducted the excursion, and also to Mr. W. B. Cowie, who greatly assisted.

A meeting of the Association was held at 36 York Place, Edinburgh, on June 19, Mr. David Harley (President) in the chair. The first part of the meeting took the form of a botanical demonstration on some of the plants collected during the excursion (before mentioned) and several others. Mr. Cowie demonstrated the diagnostic characters by which each plant could be referred to its proper class, sub-class, and natural order; and Mr. Hill illustrated the significance of plant-names, the adaption of plants to insects, the influence of environment, the means by which plants climb, and other points. Thanks having been awarded to Messrs. Cowie and Hill, and to Messrs. Harley and Plenderleith, who collected the plants, the following office-bearers were elected for the ensuing year:—President, Mr. John G. Slater; Vice-President, Mr. J. W. Plenderleith; Secretary, Mr. Peter K. Brown, 64 Tolbooth Wynd, Leith; Assistant-Secretary, Mr. Peter Gorrie; Treasurer, Mr. John Wright, 160 Fountainbridge; members of Committee, Messrs. Duncan, Cowie, Harley, Tait, McBain, Hutcheon, Middleton, and McGregor; and Prize Committee, Messrs. Duncan, Cowie, and Harley, and the President, Vice-President, and Secretary.

French News.

(From our Paris Correspondent.)

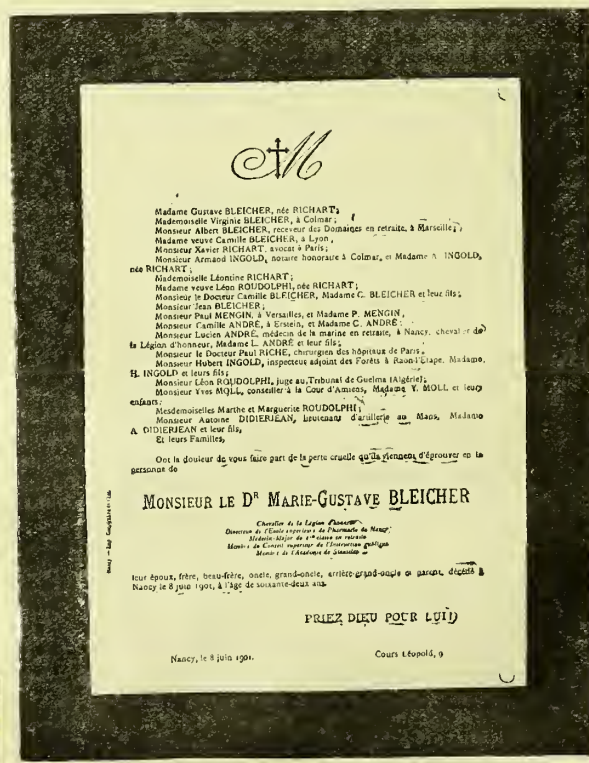
THE COUNCIL OF PUBLIC HYGIENE of the Seine has appointed two of its members, Professor Nocard and D. Albert Josias, as delegates to the British Congress on Tuberculosis to be held in London next month.

A DISASTROUS EXPERIMENT.—An accident happened at the Lille Faculty of Sciences a few days ago. M. Blaise, Professor of Organic Chemistry, was seriously injured by the explosion of a retort during some experiments he was making. It is feared he will lose his left eye.

PROHIBITION OF ABSINTHE.—The President of the Academy announced at the last meeting that he will accept the propositions put forward at the previous meeting by M. Laborde (*C. & D.*, June 22, page 983), and a commission is to be appointed to investigate the matter.

A FOREIGNER'S DIPLOMA.—At a meeting of the Council of the University of Paris held on June 24, it was decided to issue a diploma for foreign pharmaciens at the Paris School of Pharmacy who study here but do not intend establishing themselves in business in France.

THE NANCY TRAGEDY.—The *Est Republicain*, a Nancy journal, in giving an account of the recent murder of M. Bleicher (*C. & D.*, June 15, page 945), mentions that M. Four's laboratory from which the cinchona was taken was not in any sense a private one. The sample of bark was one containing comparatively little quinine, used by the makers of *apéritifs*. Pharmacists may not stock any other cinchonas than those mentioned in the Codex.—At the last meeting of the Paris Academy of Medicine sympathetic reference was made to Professor Bleicher's death by Professor Guignard, Director of the Paris School of Pharmacy. It is proposed to erect a commemorative plaque at the Nancy School of Pharmacy to perpetuate his memory.—The professors of the various French Schools of Pharmacy have been convoked by a Government order for July 11 to elect a delegate on the French Superior Council of Public Instruction in place of the late M. Bleicher. The following is a reproduction of the family's card, which was printed on quarto:—



AN ASSISTANT'S FATAL ERROR.—Carelessness on the part of a pharmacist's assistant, which led to his putting the wrong labels on bottles of medicine, caused the death of a 10-year-old boy in Paris last Monday. The child was suffering from diarrhoea, and the doctor prescribed a draught and an alcoholic lotion for poultices. By the change of the labels the young patient got a dose of the alcoholic solution, and died in a few hours, after great agony. It has since transpired that the bottles were sent back to the pharmacy by the father, and the dispenser, noticing his error, changed the labels before any inquiries were made.

AMNESTY LAW APPLIED TO AN INFRACTION AGAINST THE LAWS ON PHARMACY.—Judgment was pronounced in March last, by the Police Court of Issoudun, acquitting a grocer who had been prosecuted for illegal exercise of pharmacy, as well as a chemist implicated as an accomplice, because the Amnesty Law of December 27, 1900, applied to infringements of the laws of sanitary police, and that the Pharmacy Laws should be considered as implicitly comprised in the laws of sanitary police. The Procureur of the Republic had appealed against the judgment, but the Court of Bourges has given a decree confirming the sentence of the first judges.

ARSENIC IN BEER.—At the last meeting of the Paris Academy of Medicine M. Riche read an interesting report by M. Bordas, the Assistant-Director of the Paris Municipal Laboratory, concerning the cases of poisoning in England by arsenic in beer. M. Bordas was specially commissioned to visit London and Manchester to investigate the matter. The report says that neither malt nor hops were employed in brewing the beer in question—only glucose of bad quality, which was manufactured by the action on maize of impure sulphuric acid obtained from arsenical pyrites. The report contains details regarding the numerous methods for adulterating beer in use in England, and the reputation of English brewers, as a whole, does not benefit by the report.

A DISPENSING ERROR.—On June 21 the son of a bank cashier in the Canton of Vaud, who is about ten years of age, went to a pharmacy for a vermifuge, for which he gave a prescription. This prescription was made up by a young German assistant, who put strychnine in the mixture. The boy took a dose on his return home, and died half an hour afterwards. The *post-mortem* examination showed that enough poison had been taken to kill three horses. The unlucky assistant has been imprisoned until the close of the inquiry. His family, who live in Germany, have forwarded a sum of 3,000m. by telegram as bail, which, however, has not been accepted. This unfortunate event will doubtless attract the attention of the authorities to a custom said to be prevalent amongst local pharmacists of employing young Germans (who seldom get any salary) as assistants. These young men have an imperfect knowledge of French, and complaints are made that the public often have the greatest trouble in making themselves understood by them, and there is thus always the fear of a mistake.

INGRATITUDE.—A former pharmacist of the Salpêtrière Hospital, M. Jaqueny by name, committed suicide on June 14, under circumstances which caused considerable annoyance to his ex-colleagues. Since leaving the hospital he had established himself in business in a small suburban town. On Friday he came up to Paris, and after attending to various business matters called to see his friends at the Salpêtrière. They invited him to dinner, and as it was getting late arranged a bed for him in the sitting-room or "salle de garde." In the morning, the pharmacist on duty, M. Arcel, noticed on going into the dispensary that several bottles had been moved, and that the morphine-bottle had disappeared. Thinking a theft had taken place, he went into the "salle de garde" to ask the visitor if he had heard any noise during the night, and found M. Jaqueny lying dead on the bed. The empty bottle of morphine was on a table, and a letter expressing his wish to die. After the legal formalities had been completed, the body was conveyed to the deceased's domicile.

THERE are fifty-two chemists' shops in Warsaw, Poland and last year they dispensed 956,747 prescriptions at a cost of 73,515l.

South African News.

(From our Colonial Correspondents.)

PATENTS APPLIED FOR.—Mr. Ludwig Grote, of 84 East India Dock Road, London, has applied for a Cape patent covering "improvements in or relating to machinery for the manufacture of glass bottles or the like." A patent for "improvements in methods of and apparatus for preserving fruit, vegetables, grain, &c.," is also among the applications, by Mr. Arthur William Lawton, Brooklyn, U.S.A.

REBUILDING.—Whatever views some people may hold as to the future of the drug-trade in South Africa, the druggists themselves here are certainly not pessimistically inclined. The work of rebuilding goes on apace. Messrs. P. J. Petersen & Co. have only recently added another fine store to their wholesale premises in Barrack Street, Cape Town. Amongst others of the retail trade who are having new premises erected are Mr. F. W. C. Thomas, of Claremont, and Mr. W. Fick, Cape Town.

PERSONAL.—Mr. Harry Evans, of Messrs. P. J. Petersen & Co., Cape Town, is now on a visit to England. He may be addressed to the care of Messrs. John Murdoch & Co., 52 Leadenhall Street, E.C.—Mr. F. Varley, of Messrs. R. G. Darroll & Co., Wynberg, Cape Town, is in London, on a business-trip.—Mr. Durant, of J. C. Ayer Company, Lowell, Mass., U.S.A., and Mr. Ross, of Johnson & Johnson, New York, passed through South Africa, eastward.—Mr. Richardson, representative of Evans, Lescher & Wehler, returned by last week's mail steamer to England.—Mr. W. Gasson, chemist and druggist, Kimberley, has secured the contract for the supply of medicines, &c., to the De Beers and Kimberley Mine Compounds.

PLAGUE.—One of the many amusing incidents connected with the plague-precautions at Cape Town occurred just prior to the departure of the last mail. Before persons can proceed to the docks, whatever their business may be, they must either produce a certificate of inoculation or submit to medical examination. This is very necessary, and tends to make the tracing of the disease comparatively easy, thereby locating the spot of origin. But on the occasion of the sale of merchandise salvaged from the wrecked steamer *Tantalion Castle*, all restrictions were withdrawn for the day, only to be re-enforced the following morning with the utmost rigour. This is placing the ship in quarantine and allowing the crew on shore with a vengeance. *Later.*—The restrictions have been withdrawn again to-day (June 5) by proclamation for all time, or until plague gets bad again.

PLAGUE-PRECAUTIONS AT CONVICT-STATIONS.—A representative of the *C. & D.* visited the Breakwater Convict-station (Table Bay) for the purpose of witnessing the method of disinfection carried on there. Large numbers of convicts are now constantly engaged in cleaning the city, especially in the coloured quarters, where plague exists and corpses are found daily. On their return at night they are marched into two large rooms and compelled to divest of every stitch of clothing, which is placed on wire netting suspended table-like fashion, and undergoes sterilisation by means of gas from formalin-tablets in Alformant lamps, the convicts themselves passing on to a bath well seasoned with Jeyes' fluid, then to clean clothing. It is a noteworthy fact that only one case of plague has appeared on this station, and that was previous to the course now in operation for its prevention. Seeing the dangerous occupation of these convicts, the superintendent responsible is to be congratulated on the success of his scheme to keep the scourge at bay.

SHIPPING.—The shipping-arrangements at Table Bay (Cape Town) are in a splendid state of chaos; indeed, they have been thus for years, and the drug-trade is calling aloud for a change in administration, or a change somewhere, as matters could not possibly be worse than they are now. Cargo-steamer ride at anchor in the Bay for periods extending up to six weeks at a time. When a berth does eventually await them in the harbour the landing-agent's facilities for working and delivering cargo are grossly inadequate, so that the discharge of the ship is curtailed in consequence. The Harbour Board blames the landing-

agents, who, in turn, point to the military as the real cause; but, as a similar state of things existed long before war commenced, it is difficult to sympathise with those holding this view. And, while all this controversy goes on, the military authorities look after their own business, leaving Cape Town and its merchants and public bodies severely alone. Truly, South Africa is a wonderful place—only less wonderful than its citizens. Still, our feelings are with the Cape druggists, and would be pleased to hear that their means of augmenting their supplies and relying on shipments had undergone the change so much desired by them.

CAPE PHARMACY BOARD.—The report for 1900 recently presented to both Houses of Parliament and just printed shows that four examinations were held during the year—three in Cape Town and one in Port Elizabeth. There were in all twelve candidates for examination, of whom six were successful and six failed to satisfy the examiners. The regulations framed by the Board have been amended during the year, defining more clearly the arrangements relating to the examinations. In future the Board will conduct examinations twice a year, and candidates will be required to pass a satisfactory written examination before they present themselves for the oral and practical portions thereof. The School Higher examination of the Cape University has been adopted as the lowest standard that will be accepted for the Preliminary examination. The number of chemists and druggists registered during 1900 was fourteen; of these nine had been registered in England, one in Ireland, and four had passed the Board's examination. The Provisor's diploma, issued by the Government of Russia, and the examination certificate of the Pharmaceutical Society of Tasmania, have been added to the list of qualifications registrable in this colony. The holders of the Board's certificates will in future be entitled to registration in Tasmania.

NATAL'S TRADE AND FINANCES.—In moving the second reading of the Supply Bill 1901-2, at the House of Assembly, Maritzburg, on May 23, the Treasurer remarked that the revenue from all sources throughout the Colony during the year had, indeed, exceeded his expectations. The Customs duties for the financial year ending June 30 next would amount to 450,000*l.*, exceeding the estimates by 150,000*l.* This increase was due to larger importations of wines and spirits, tobacco, matches, soap, candles, and condensed milk, consequent on the prolonged stay of the military and refugees. The Treasurer hoped that shortly a Customs conference between the various South African colonies would be held, and the whole question of tariff duties discussed. Turning to the imports for the calendar year, the value in 1900 (exclusive of bullion and specie) was 5,911,518*l.*, against 5,359,259*l.* for the previous year—an increase of over 10 per cent., military stores not included. From the United Kingdom goods to the value of 3,625,957*l.* were received in 1900, an increase over 1899 of 175,324*l.*—i.e., a little over 5 per cent. From the British Colonies goods to the value of 1,087,331*l.* were received, an increase over 1899 of 477,660*l.* Of this increase Victoria contributed over 288,000*l.*, New South Wales 53,000*l.*, South Australia 39,000*l.*, and New Zealand 52,000*l.* The trade between Australia and Natal advanced by leaps. The value of exports for 1900 fell to 1,135,322*l.*, which was entirely due to the war.

American Notes.

(From our New York Correspondents.)

MR. J. PIERPONT MORGAN has given a sum exceeding a million dollars for the erection of three buildings for a medical school at Harvard University.

PERSONAL.—Mr. W. B. Kaufman, manager of Messrs. Parke, Davis & Co.'s importing-department in New York, is in London at present on a short visit.—Mr. Theo. F. Meyer, vice-president and general manager of the Meyer Brothers Drug Company, has purchased a large residence-lot west of Forest Park, St. Louis, for \$30,000, on which he intends erecting one of the finest residences in the city.

ITEMS IN BRIEF.—The firm of E. R. Squibb & Sons, of Brooklyn, has been incorporated with a capital of \$15,000.—Professor J. H. Beal, dean of the Scio College of Pharmacy, Scio, O., has been appointed Chairman of the faculty of the Pittsburgh College of Pharmacy.—Mr. William M. Warren, general manager of Messrs. Parke, Davis & Co., of Detroit, has gone on a European tour of several months.—Mr. Frank Edel, of Carthage, Mo., owner of one of the largest drug-stores in Central Missouri, lost his entire stock by fire a few weeks ago. His assistant was liquefying a can of carbolic acid on a gasoline-stove when an explosion took place, causing a fire which did damage to the extent of over \$10,000.—Messrs. Seabury & Johnson have the only exhibit of plasters, bandages, &c., at the Pan-American Exposition.

LANOLINE TRADE-MARK CASE.—On Friday, June 14, before Judge O'Gorman, of the Supreme Court of the State of New York, was tried the case of Benno, Jaffé & Darmstaedter against Evans & Sons, for infringement of trade-mark in advertising and offering for sale a product known as British lanoline. Plaintiffs submitted evidence showing that a number of wool-fat products had been placed upon the market, prior to the expiration of the patent, which were known under various fanciful names or under the terms "adepts lanæ" and "adepts lanæ hydrosus." The evidence tended to show that only one product was known as lanoline, and that this was the B.J.D. brand. For the defendants expert testimony was introduced, tending to show that the various wool-fat products were similar in composition, and that the different processes provided practically one and the same product. Evidence showed that British lanoline contained 29 per cent. of water against 25 per cent. in the B.J.D. brand. Retail druggists were called to testify that since the expiration of the patent the various brands (hydrated) were supplied indifferently when lanoline was ordered, and that the packages were so dissimilar in appearance that no one would be likely to be deceived by the substitution of one for the other. Counsel were allowed to submit briefs, and decision was reserved.

AMERICAN COMPANIES.—The incorporation of joint-stock companies connected with the drug-trade continues with unabated vigour. In a recent issue of a New York contemporary we collated the following:—Messrs. C. I. Hood & Co. (Hood's Sarsaparilla), of Lowell, have become incorporated as a stock organisation to be called the "C. I. Hood Company." They intend to continue to deal in pharmaceutical, medicinal and food preparations, with \$1,000,000 capital stock, of which \$600,000 is paid in.—The stockholders of the Smith, Kline & French Company, of Philadelphia, have increased the capital stock of the company to \$1,000,000, a step necessitated by the growth of business and need of a larger working capital.—The Heller Chemical Company, of Chicago, has certified to an increase of its capital stock from \$5,000 to \$15,000.—In New York the Russell Medical Company has been incorporated to manufacture medicines, with a capital of \$75,000; the Hanson Drug Company has incorporated with \$6,500 capital; and the Herb Soap Company of New York has incorporated, with a capital of \$10,000.—The Ozo Remedy Company, doing business at New Brighton, a suburb of Pittsburg, have formed a corporation with a capitalisation of \$10,000. The company will manufacture ozoline and other proprietary remedies.—The Brady Robinson Company, of Baltimore, has been incorporated with a capital stock of \$10,000. The company will manufacture flavouring extracts and proprietary medicines, and the X-O Dust Manufacturing Company (also of Baltimore), for dealing in drug specialties, has been incorporated, with a capital of \$20,000.

APOTHEKER BOYCOTT.—The dispute between the Berlin apothekers and the sick-clubs (*Krankenkassen*) still continues, no settlement having as yet been arrived at. The sick-clubs have boycotted the *apotheken* since the beginning of May because they refused to grant them discount on the medicines supplied. All supplies which they can legally obtain are procured from druggists exclusively. The sick-club authorities recently received a police notification to request their doctors to exercise more care in prescribing the medicaments to be obtained from druggists, as cases had already arisen in which they could not legally supply those ordered.

Pharmaceutical Society of Great Britain.

NORTH BRITISH BRANCH.

A MEETING of the Executive was held at 36 York Place, Edinburgh, on Friday, June 21, Mr. Peter Boa presiding. The report of the General Purposes Committee dealing with the question of local organisation and other matters was read and adopted, and the report by the scrutineers for the election of the new Executive was read. Mr. W. L. CURRIE moved a vote of thanks to Mr. J. L. Ewing for the great ability and earnestness with which he had served the Society during the years he had been a member of the Executive, which was seconded by Mr. KERR, and unanimously adopted. Mr. EWING, in acknowledging the vote of thanks, said it would always be a pleasure to him to aid the cause of pharmacy in Scotland.

ANNUAL MEETING OF THE BRANCH.

The annual meeting of Scottish members was held thereafter, Mr. Peter Boa in the chair. The CHAIRMAN, in his valedictory address, said the members had already had circulated among them a report of the work done during the year by the Executive. Having referred to the losses by death sustained by the Society during the year, he said the membership of the Society in Scotland last year was 583, and at the present date it was 638—an increase of 55. In these days of census-taking it was interesting to go back ten years, to 1891, when the membership was 308, so that in ten years they had more than doubled their members. In the previous ten years the increase was from 210 to 308—an increase of 98 in that period. This was very gratifying to him, and he would say it was due to the energy and efficiency with which the Assistant Secretary did his work, and also to the influence of members of the Executive in their own districts, as well as to the work of the Council in their desire to meet the requirements of all pharmacists, as evidenced in the draft Pharmacy Bill and in other ways. It was, however, of the utmost importance that a very much larger percentage of registered men should join the Society. It was satisfactory to note that they had always been able to secure on the Executive members who very fairly represented the various districts throughout the country. In regard to the voting, he observed that while 638 voting-papers had been sent out, only 283 had been returned. He wondered why there were so few, and would like to get at those who did not vote. It had been complained last year that the scrutineers or some persons could tell how particular members voted. He stated very distinctly that the method adopted in counting the votes made it absolutely impossible for anyone to know how any member voted. He hoped, therefore, that no one would be deterred from recording his vote on that ground. He had spoken last year of the advisability of having local meetings of pharmacists throughout the country, and this plan had been to a considerable extent carried out in England since. The Council had requested the Executive to undertake the duty of making arrangements for improving and completing their local organisation, and the matter had received a good deal of attention, and was still under consideration. It had not been thought expedient to have any meetings in Scotland as yet, but the matter would doubtless be considered by the new Executive, and perhaps in the autumn they might arrange to have some meetings if there was a desire for them. He noted with satisfaction that the passes in the qualifying examination at Edinburgh showed an increase, though very small, in the percentage, the figures being 38.88, as compared with 38.35. They would not consider the situation at all satisfactory till the passes were considerably over 40 per cent. It had been supposed that the 10s. fee would reduce the failures, but as yet it had not done so, and he did not believe it would. The higher Preliminary examination was much more likely to do so, but it was too soon yet to see the effects of it. For the present this higher Preliminary seemed to have raised a difficulty in obtaining apprentices. That might rectify itself in course of time. It might reduce the number of those entering the ranks, and then there

might be a chance for shorter hours and a better status for those in the profession. In that connection it might be worth considering whether Mr. Carnegie's munificent gift to Scotland could not be made available for the promotion of pharmaceutical education. After some further remarks, he said the year had been marked by two very important events affecting the administration of the Pharmacy Acts in Scotland—viz., that contravention of the Pharmacy Acts carries with it liability to imprisonment in default of paying the penalties, and the General Medical Council's action in regard to unqualified persons in doctors' shops. He considered that the latter struck an effective blow at a great evil, and the two events had put a stop to scandalous defiance of the law. The result could not be otherwise than beneficial both to the public and to pharmacists. In concluding, Mr. Boa referred to the fact that the jubilee year of the institution of the North British Branch is this year, and the Executive would consider how they could suitably take notice of so important an event.

ELECTION OF THE NEW EXECUTIVE.

The ASSISTANT-SECRETARY then read the scrutineers' report, from which it appeared that 95 members had been nominated, of whom 29 signified their willingness to act if elected. A voting-list was accordingly drawn up, and voting-papers were issued to 638 members. Of these 283 were returned, of which 3 were informal, leaving 280 votes to be recorded. Four voting-papers were received too late to be included in the enumeration. The following are the successful candidates:—

	Votes		Votes
1. Peter Boa, Edinburgh	247	10. Wm. Beaverley Cowie, Edinburgh	181
2. Claude Francis Henry, Edinburgh	231	11. David Brown Dott, Edinburgh	179
3. Wm. Little Currie, Glasgow	230	12. Wm. Doig, Dundee	172
4. Chas. Kerr, Dundee	204	13. James Anderson Russell, Glasgow	170
5. John Hutcheson Fisher, Dunfermline	194	14. D. Mitchell, Inverness	165
6. Andrew Naysmith, Arbroath	193	15. John Tocher, Dumfries	165
7. Alex. Strachan, Aberdeen	192	16. John Johnston, Aberdeen	164
8. Alex. Spence, Linlithgow	190	17. Thos. Dunlop, Glasgow	161
9. Robt. McAdam, Glasgow	188	18. Thos. Maben, Glasgow	156

The Executive is the same as last, except that Mr. Dott and Mr. Maben take the places of Mr. J. L. Ewing and Mr. David Gilmour, resigned.

The following are the unsuccessful candidates:—

	Votes		Votes
Wm. Stephen Glass, Edinburgh	136	Wm. Potter Wilson, Haddington	71
Adam Gibson, Edinburgh	127	Wm. Giles, Aberdeen	69
Wm. Allan, Dumfries	125	Alex. John Dey, Edinburgh	66
James Nesbit, Portobello	124	Jeannie Stewart, Dumbar-ton	66
Wm. Cummings, Dundee	91	Patrick Mitchell, Dum-barton	55
Colin Allan Macpherson, Edinburgh	86		

It was moved by Mr. KERMATH and seconded by Mr. LUNAN that the report be approved, which was agreed to. The CHAIRMAN then declared that the first eighteen gentlemen, with the addition of the President (Mr. G. T. W. Newsholme), the Vice-President (Mr. C. B. Allen), and Mr. David Storrar (Kirkcaldy) as *ex-officio* members, would form the Executive for 1901-1902.

MR. CARNEGIE'S GIFT.

Mr. GEORGE LUNAN, referring to Mr. Carnegie's gift for promoting university education in Scotland, said Professor Fraser, in addressing the Society in Edinburgh a few years ago, referred to the possibility of the universities being made available for the training of pharmaceutical students. He thought the Executive might take steps to see if something could not be done, and moved accordingly.

Mr. DAVID GILMOUR seconded the motion, and, as a Dunfermline man, thought if the matter were put before Mr. Carnegie the representations would not be without effect.

The motion was unanimously adopted, and thanks to Mr. Johnston and the Chairman concluded the proceedings.



THE day of exhibitions is not yet done. The show in Paris last year was so magnificent, so comprehensive and cosmopolitan, and withal so lavish in expenditure, that many believed the world would not see its like again. THE CHEMIST AND DRUGGIST was amongst those who said so, and we do not go back upon that expressed opinion, for there is really no necessity to compare Paris with Glasgow. Paris in 1900 was bound to beat the Chicago of 1893, and did it easily, so far as artistic excellence is concerned. Glasgow has no ambition of the kind, except a desire to make a better than its previous best. Moreover, the attractions of Kelvingrove are for a purpose—a money-making purpose, too—and that is incompatible with world records in bigness or anything of that nature.

The last time there was an international exhibition in Glasgow (1883), a profit of 60,000% was made off it. With this the citizens started to build an art gallery, and added 70,000% to the fund in subscriptions. The Art Gallery is

concessions have been paid for, but the main fact is that the whole of the initial expenditure on temporary buildings, grounds, and exploitations generally was wiped off before Whitsuntide. This is a fair indication of Glasgow's earnestness, and it is almost comforting to hear how they compare the exhibition with the last one (in Glasgow), and to observe how, day by day, the newspapers tell all about it—the attendance and what it was made up of, the big people who were there, the bands that played, the organists or pianists who filled the concert-hall with sweet sounds, and what is to be "special" to-day—but never a word about other international exhibitions that have been held elsewhere. But is there any sound reason why they should worry about that? We think not. No city, not even Paris, has created so noble a building as the Glasgow Art Gallery in association with an exhibition of industrial products. There are richer buildings in the British Empire, but none modern which can compare with it in impressiveness and grandeur. The grandeur is akin to that of Wren's great masterpiece. It owes nothing to colour, gilt, or marble, but is purely a delight of form and spaciousness.

This summer it is filled with a rare collection of pictures representing British art, past and present, but the Scottish school is particularly well represented. It is beyond our province to dilate upon this part of the exhibition, yet we must emphasise its importance and the desirability of all visitors reserving as much time as they can for the Art Gallery. The building will stand, but the art collection is a summer idyll which will not occur again.

Next in importance are the exhibits relating to engineering, especially marine engineering. It scarcely concerns our readers, yet we cannot avoid the remark that Glasgow is the centre of the engineering universe, the premier teacher of this branch of knowledge. At the present time, when Englishmen feel sad about American steel products pouring into the British markets, it is a significant thing that the United States is sending some of her best students to learn engineering at the Glasgow University. The city has a reputation for shipbuilding and engine-making second to none, yet has so far departed from the tradition which clogs the wheels of progress in other industries (chemistry, for example) as to establish a thorough school of the theory. We daresay Lord Kelvin is largely responsible for this, because he has always been an industrial producer as well as a theory maker. But the spirit of the people is at the bottom of the thing, for theory and practice have gone hand-in-hand on the banks of the Clyde since James Watt and Smithson Tennant journeyed to France for ideas.

Chemical industry is fairly represented in the Exhibition, but not nearly so well as in 1883; and our preliminary reports have indicated that there is little in the Industrial Building directly connected with pharmacy. In the various



THE CONCERT-HALL.

now completed, but there is a debt of 120,000% on it, and this year's exhibition is to wipe off that debt. Will they do it? Well, to begin with, Glaswegians have bought 90,000% worth of exhibition season-tickets, and the firm who have obtained the concession to supply refreshments paid 30,000% for it, besides about a fourth of the takings. Doubtless other

minor buildings in the grounds little is exhibited which has not been anticipated in the great International Exhibitions held during the past twenty years; indeed, the agricultural, Canadian, and Russian buildings are a repetition on a smaller scale of exhibits which have been seen elsewhere, although not in the United Kingdom.

In this article we propose to deal more fully than we have done hitherto with the individual exhibits which are worthy of close attention by chemists and pharmaceutical visitors. Most of these exhibits are in the south-west courts, but we found it most profitable to enter the Industrial Building by the Gray Street entrance, working down through Ceylon, India, Queensland, Rhodesia, Russia, and France, past the colossal and ugly statue of King Edward, and so on to the group of chemical and allied exhibits. So working, he is an unimaginative pharmacist who does not gather many new ideas or facts in the course of a day's ramble, and he has still to exhaust the Royal avenue, with its furniture, model ships, and office appliances, that leads to the Machinery Hall, where Scotch sweets and shortbread in various stages of manufacture are to be seen, besides all that iron and steel do for man in machinery and manufactures. Last of all, the visitor may take the pictures in the gallery at his leisure, and the outdoor attractions when he is drawn thither by the cravings of the inner man.

It may be noted that no certificates, medals, or awards of any kind are to be given in this Exhibition.

COLONIAL COURTS.

The SEPTIC TANK SYNDICATE (LIMITED), of Exeter and Westminster, show models and photographs of Mr. Donald Cameron's system of treating sewage, which consists substantially in passing the sewage through two or more filter-beds filled with furnace clinker charged with micro-organisms that break down all the organic solids, rendering them soluble, and so altering the constitution of the dissolved substances as to yield a filtrate which may be run into streams or rivers without contaminating them. Sludge is the bane of sewage-treatment generally, but there is none in the Cameron process, and the fact that the method is equally applicable to a single dwelling and to such a town as Exeter is good evidence of its utility. There is nothing novel in the principle, but it rarely happens that chemists have the opportunity of looking practically into the details of the working, and that is the chief reason for our calling attention to the exhibit. Close by it will be found a number of exhibits by sanitary engineers, such as Messrs. DOULTON & Co. (LIMITED), of Lambeth, but none of them approach the Septic Tank exhibit in real scientific interest.

One may next step over to the mercury-fountain exhibited on behalf of the Queensland Government at the Greater Britain Exhibition in Earl's Court two years ago, and again brought to light in Glasgow in order to illustrate the Queensland production of mercury ores. Of these there is a series of specimens exhibited in a glass case along with all the 1898 Pharmacopoeia salts of mercury prepared by Messrs. T. TYRER & Co. (LIMITED), of Stratford, E., who also exhibit other mercury compounds as well as bismuth salts. The mercury exhibit is unquestionably of great interest, because Queensland does not figure anywhere as a producer of quicksilver, and it would unquestionably be an advantage to know to what extent this source of the metal can be relied upon. We were disappointed to find on application to the Queensland representative that nothing is practically known about the matter except that the specimens of cinnabar exhibited came from the Kilkivan district. The ores do not seem to be rich in mercury, and the output must be small, as quicksilver does not figure in the colony's exports. We find that in 1898 the bismuth exported was valued at 700*l.*, as compared with 134*l.* in 1897. The colony is fairly rich in bismuth ores, and wolfram ores are also obtained to a considerable extent, the value of the exports in 1898 having been 2,540*l.* The quicksilver fountain was designed by Mr. Charles Bright, F.R.S.E., and it is worked in an ingenious fashion. On one side of the gangway is a trough into which quicksilver flows from the fountain at the other side by means of a pipe beneath the floor, and from this trough it is carried by an endless band bearing tiny buckets up to a tank which stands higher than the fountain. Each bucket as it reaches this tank empties its contents into it, and from the tank the quicksilver flows

automatically to supply the fountain once more. The fountain, with such floating objects as flat-irons, impresses visitors with the idea that Queensland is a quicksilver-producing country, 3 tons of the metal being used in the fountain. This is probably more of the metal than has ever been obtained in the colony, and it would be interesting to know what the object of the exhibit is. If the Colonial-state representatives are in earnest about the matter, they cannot too soon have their resources thoroughly investigated.

The BRITISH SOUTH AFRICA COMPANY have an excellent general exhibit, chiefly devoted to Rhodesia; but we could find nothing in it of direct interest to pharmacists.

FRANCE.

The French section is somewhat reminiscent of last year's Paris Exhibition, a few of the exhibits having been bodily brought from the great collection on the banks of the Seine. We advise a walk round the section. In the food-group there are several rather interesting exhibits: for example, that of Rochfort cheese, which includes a small collection of cultures of the micro-organisms which produce the best characteristics of this noted cheese. It will be remembered that about a dozen years ago it was scientifically determined that the fine flavour of the cheese depends upon a specific micro-organism, and if any foreign organisms are admitted into the ripening-chambers the result is disastrous to the cheese. Here also are exhibited by Messrs. VILMORIN, ANDRIEUX & Co. beautiful models of agricultural roots and the like, such as are used by botany teachers for illustrating their lectures, and which are now used liberally in French rural schools in order to show advanced scholars the nature of the roots obtainable under the best methods of culture.

Messrs. MALESETT & CHOUANARD, of Paris, have a good exhibit of syphons and gazogenes, the forms being somewhat different from those that are popular in this country. Some wickered gazogenes have the wickering elegantly finished with gilt. An exhibit of natural fruit-juices and colours by L. FICHOUT LAUDRIN, of Paris, is also placed in this group; and in the adjoining Textiles Court we came across a substance called "écru" cotton, made by L. Hublet, which is said to contain 30 per cent. of fibre obtained from eucalyptus [? flowers]. There are no particulars in respect to it, and our inquiries led us to the conclusion that French manufacturers who exhibit abroad are quite as oblivious to business as others nearer home are when they do the same thing.

The French chemical, drug, and perfumery exhibits are not particularly striking. M. GUSTAVE CHALMEL, who acts as president of the section, is a varnish and colour manufacturer, and in that capacity exhibits a number of spirit varnishes; M. LOUIS PLASSARD, the well-known Paris perfumery manufacturer, who acts as secretary, exhibits a magnificent show-case containing soaps and perfumery, which was an attractive feature of the Perfumery Section at the Paris Exhibition. Messrs. CHEVRIER & HELOUIS, also of Paris, are the manufacturers of a proprietary medicinal tonic entitled "La Vanadine." This preparation seems to owe its tonic property to ammonium vanadate, and it appears to be the first medicinal preparation of vanadium—at least of modern times. In Berzelius's day, fully half a century ago, vanadium salts were suggested as a substitute for arsenic, but they did not find a place in medicine. Nearly three years ago, and apparently in consequence of the introduction of La Vanadine, Drs. Lyonnet Mariz and Martin, of Lyons, experimented with sodium metavanadate, and ascertained that in the medicinal dose of 1 to 5 milligrammes the salt acts as an appetiser, and generally as a hematinic in bloodlessness. The makers of La Vanadine also exhibit "disinfected cod-liver oil," whatever that may be. M. VICTOR KLOTZ makes an excellent exhibit of Pinaud's perfumery, and there is an exceptionally good exhibit of Armenian paper made by M. FERNAND MOUSSAUD, of Paris, which is sold in attractive little booklets, made up of triple strips of the paper, one of which is placed in a neat tripod easel for burning. An exhibit of wood products, consisting of acetates and acetone, is placed in the corner of the group by Messrs. PAGES, CAMUS & Co., of Paris, and we were attracted by an announcement that artificial rubies, scientifically manufactured by M. MARC PAQUIER, were to be seen, but not a ruby could we find in the case, although oxide of chrome and powdered aluminium. M. SIMON exhibits

his well-known Crème Simon and powder, as well as soap containing the cream.

Madame BLANCHE LEIGH, of Paris, and 126 Oxford Street, London, also exhibits in the French section all classes of her manufactures in soaps and perfumes. They are not amongst those which have just been mentioned, but in the French Annexe Pavilion (Group H), which is placed in Kelvin Park.

RUSSIA.

The Russian section was not open until the second week in June, and even then it was by no means ready, as quite a number of stands in the Industrial Hall were in an unfinished condition. The pavilions in the grounds are all open, but there is not sufficient material in some of them to fill up the available space, and a large number of exhibits mentioned in the catalogue are not to be traced as yet. The effect is, therefore, a little disappointing; but what is lacking in quantity is more than made up in quality. The majority of the exhibits are of great general interest, and a few appeal specially to pharmacists. One of the latter is the small case shown in the Industrial Hall by Professor Dr. A. POEHL, of St. Petersburg. The case consists of a triangular pyramid, nicely upholstered in green and crimson plush. Surrounding the base is a series of very superior "photograms of Charcot-Leyden's crystals of spermine phosphate," which show the very varied appearances assumed by this compound. One side of the triangle is taken up with "pharmaceutical preparations," another with "organotherapeutic preparations," and the third with "physiological preparations." Among the first-named are standardised solid extracts of aconite, 1.72 per cent. alkaloid; belladonna, 1.27 per cent.; conium, 0.58 per cent.; and hyoscyamus, 0.82 per cent. In view of the fact that Merck recently stated that he had never met with natural extract of henbane containing 0.75 per cent. of alkaloid, it is interesting to find as much as 0.82 per cent. in this Russian extract. It would be more valuable if we had details of the process by which the alkaloid was estimated, not only in henbane, but also in the other extracts. The figure for aconite appears high, though it is quite common to find belladonna extract much higher than $1\frac{1}{2}$ per cent. There are also solid extracts of calamus aromaticus, populus, valerian, chelidonium, and secale cornutum, as well as dialysed ergotin; fluid extracts of valerian, frangula, viburnum, uva ursi, male fern, and several others. Dialysed oxide of iron and glycerophosphate of iron, both in scales, are interesting; glycerophosphate of lime, arbutinum, and some mercury preparations are shown, and also dried extract of malt, and soluble powdered extract of liquorice. The second face of the triangle contains glass bulbs of sperminum (Poehl) in solution, phosphate of spermine, hæmaglobin pills, and compressed tablets of medulline, cerebrine, suprarenaline, mammine, orchidine, prostateine, parotidine, ovarine, epididymine, renine, thyreoidine, &c. The physiological preparations are of great interest to physiologists and pathologists, as they include something like seventy or eighty animal alkaloids and principles, either free or combined with gold or platinum, such as leucomaines from muscular tissue, pancreatic fluid, and testicles, and from melancholic, tetanic, epileptic, and eclamptic patients; methylamine in crystals; trimethylamine and paramethylendiamene; cadaverine, methyltoxine, spasmotoxine, tetanine, globuline, hematine, myrosine, pepsine, pancreaticine, kreatine, xanthine, taurine in large crystals, choline chloroplatinate in very fine orange stalactitic crystals; urea, alloxan, biuret, urates of ammonium and calcium, uric, hippuric, taurocholic, formic, lactic, glutamic, acrylic, and propionic acids, and many other preparations. This exhibit will be a surprise to most pharmacists, for comparatively few are aware that physiological chemistry is apparently more advanced in Russia than it is in this country. We gathered that not many medical men have as yet made the acquaintance of this part of the Exhibition, which is a pity considering the immense influx of scientists at the University jubilee celebrations.

The RUSSIAN COMPANY OF CHEMICAL PRODUCTS, St. Petersburg, show a nice collection of coal-products, coal benzene, 0.875 and 0.880, 90-per-cent. benzol, toluidin, lysol, benzoin soap, carbolic acid crystals and powder, creoline "Sanitas" and creoline powder, naphthalin in cakes—compressed tablets six to the ounce or thereby—naphthalin sub-

limated in beautiful micaceous crystals, nitronaphthalin in yellow crystals, vaseline, and various qualities of mineral grease.

The BONE PRODUCTS FABRICATION COMPANY, of St. Petersburg, have a nice show of glue and various large jars of powder, but none of these were labelled when our representative came along. Several other cases are to be filled with products interesting to pharmacists, but as yet these are empty.

There are in the grounds six pavilions devoted to agriculture, forestry, mining, manufacturing industries, grains and seeds, and flour. The varied character of the Russian climate is shown by the diversified products, such as all the cereals—rye, wheat, oats, barley—maize, lentils, rice, peas, beans, tea, hops, castor-oil seeds, sesame, camelina, hemp, aniseed, linseed, poppy-seeds (blue-grey in colour), sunflower-seeds (black for feeding-purposes and striped for oil-crushing), wild-saffron seeds from Siberia, lucerne-seeds from Turkestan, a large variety of natural-grass seeds, buckwheat-seeds, a triangular dark-brown seed like stavesacre in shape but smaller and not pitted, cotton-seed, cotton, flax, hemp, silk, wool, &c. In the Mining Pavilion is an exhibit by NOBEL BROTHERS, Baku, who show products from ozokerite, such as cerasin, white vaseline, crude oils, machine-oils, gasoline, kerosine, and benzene. A. M. SHUKOFF, St. Petersburg, shows naphtha pitch, stearine pitch, and machine-oils. A feature of this section is the magnificent series of ornaments made up of polished stone and fine minerals, hundreds of minerals of different colours being made up into beautiful and fantastic articles. There are also some valuable ornaments made from jade and other precious stones.

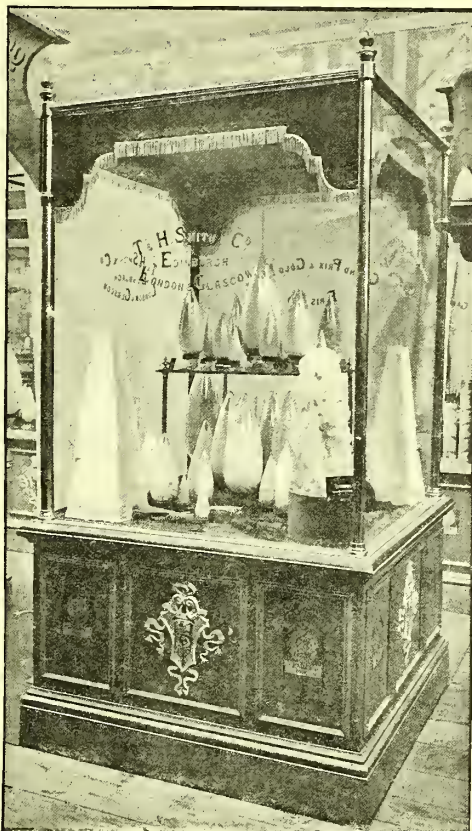
The Forestry Pavilion contains much that is interesting to pharmacists, there being complete series illustrative of the dry distillation of wood, models of distilleries for making pitch and turpentine, and of manufactories for birch-tar and lampblack. Specimens of all the products are shown. White resin, as obtained by tapping the pine, yields 8 to 10 per cent. of essence of turpentine, and 80 per cent. of resin, of which 50 per cent. is colophony and 30 per cent. crust. Pale rectified turpentine is obtained by purifying the yellow essence by means of a double distillation in presence of lime, and refrigeration in the air. At the first distillation yellow turpentine yields 75 to 85 per cent. of pale-green turpentine, and the latter yields rectified turpentine equal to about 70 per cent. of the whole. The manufacture of birch-tar (oleum rusci) and charcoal is also shown.

The exhibits by other foreign countries (the United States is not amongst them) consist chiefly of bazaar goods. The visitor by this time will have passed the King's statue, and reached the South-West Courts, where most of the

EXHIBITS ALLIED TO PHARMACY

and produced by British firms are to be seen. Here the most important collection of pharmaceutical interest is that of Messrs. T. & H. SMITH & Co., of Edinburgh. It is shown in a series of four upright cases joined together at the summits to form a booth. One of the cases is devoted solely to dietetic preparations such as essence of coffee, another to general pharmaceutical products, including tannic acid, jalap, resin, and compound syrups; a third to flexible gelatin capsules, and a fourth, which is that illustrated, to opium, its alkaloids and their salts. The varieties of opium exhibited are: Australian, Karahissar, Persian (five kinds—viz., brick, cone, carrot, ball, and stick), Ghêvé, Bogaditz, Malatia, Salonica, Egyptian (brick), Tokat, Indian (ball), China, Yerli, and Youghournia, or pudding opium. This is, we believe, the first time that so many varieties of Persian opium have been publicly exhibited; indeed, the whole is an exceptionally comprehensive selection, but perhaps not more than was to be expected of a firm who have been associated with the working of opium since the days when Gregory's process of making morphine was still novel. The contents of the case are worth careful inspection, the specimens being exceptionally good, and some of them are rarely handled by dispensers. For example, there is morphine in large crystals, and the hydrochloride in cubes and blocks of minute crystals which are preferred on the Continent; also such uncommon salts as the bromide, iodide, lactate, and nitrate. The finest thing in the case is a crystallisation of codeine 28-inches high, which is reproduced photo-

graphically. This is the first time that codeine has been crystallised in sugar-candy form, previous large crystallisations having been in the basin. This crystallisation contains

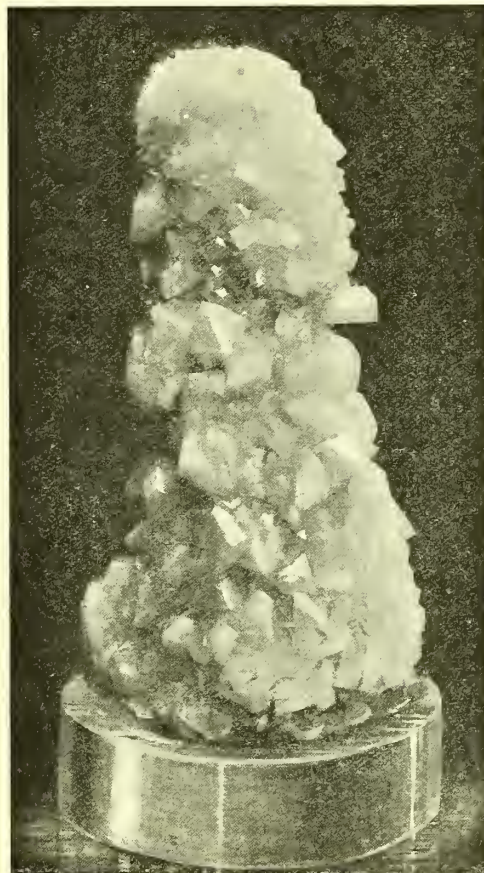


OPIUM AND OPIUM-ALKALOIDS CASE.

about 26 lbs. of the alkaloid, and would retail at 300%. It took six months to crystallise, and is as bright and transparent as alum. Of the other alkaloidal products here exhibited, one of the most interesting is xanthaline sulphate, a new salt of the last opium alkaloid ($C_{31}H_{36}N_2O_9$), discovered by this firm twenty years ago. The free alkaloid is a white crystalline powder, and is a somewhat feeble base, for the salts formed with mineral acids, though permanent *per se*, are very apt to split up on solution. The salts are also distinguished by their yellow colour, hence the name xanthaline. Other rare alkaloids, neutral principles, and acids of opium are exhibited. Since the British Government allowed denatured tea to be purchased by home buyers, the manufacture of caffeine has become practically a British monopoly, for, as with the making of opium alkaloids, the production does not depend upon the use of duty-free spirit. It is not surprising, therefore, to find that Messrs. Smith produce caffeine to a large extent, especially for export, and obelisks and fluffy cakes of the pure white crystals are amongst the exhibits, as well as several salts. Amongst other alkaloids we noticed emetine, veratrine, strychnine, theine, atropine, brucine, and furfural. Many other medicinal preparations manufactured by the firm are included in the exhibit, and the display of flexible gelatin-capsules is excellent, considering that the firm exhibit these for the first time. We can say little about them at present except that they are of excellent shape, being olive- rather than pear-form, and accuracy of volume is a point on which we assured ourselves by inquiry as well as by test. Nearly two hundred varieties of capsules are exhibited, and they include creosote and guaiacal capsules in a flexible film.

Messrs. ARMOUR & Co., of Chicago and London, have a good display in the showcase of a Glasgow firm of grocers. The various animal ferments are shown, such as pepsin and

pancreatin, in powder and tablet form. The glands from the calf, sheep, or pig are shown preserved in spirit—namely, the ovarian body, the pituitary body, thyroid and thymus gland, and the suprarenal capsule—and all these are also seen in the dried and powdered condition. The lining of a pig's stomach is also in evidence, labelled as being the source of pepsin. Of by-products from the stockyard-industry the number is legion, and includes gelatin, glue,



CRYSTALLISATION OF CODEINE.
(Height, 23 inches. Weight, 26 lbs.)

glycerin, animal charcoal, boneblack, potassium cyanide, ferrocyanide, and carbonate, ammonium sulphate, blood-albumen ("black" and "special"), dried blood, meat-meal, bone-meal, tallow, neatsfoot oil, lard oil, and tallow oil. The exhibit is interesting as showing the immense variety of substances obtained from the carcasses of the animals slaughtered in Armour's stockyards, and even these do not constitute the entire range of the medicinal products marketed by this firm. The only other strictly pharmaceutical British exhibit is a portion of Price's Patent Candle Company's showcase devoted to medicinal and medicated glycerins, which are referred to later.

ALKALI-MANUFACTURE AND GLASGOW CHEMICALS

were at one time almost synonymous terms, for in the eighteenth century the production of soda salts from sea water was well established there, and the city is the home of bleaching-powder. Tennant's stack now stands as a memorial of faded glory, the incorporation of that and other alkali works in Scotland with the United Alkali Company (Limited) having effected a concentration of productive effort chiefly on the southern side of the border nearer the great salt territory, and thus enabled the old Le Blanc process with its valuable by-product, chlorine, to survive beside the cheap and simpler process devised by Solvay and perfected by Ludwig Mond.

Both the UNITED ALKALI COMPANY and Messrs. BRUNNER, MOND & CO. (LIMITED) exhibit their products, the same cases being those used in Paris. It will be seen from Messrs. Brunner, Mond & Co.'s, which we reproduce from a photograph, that the case is an impressive piece of cabinet-work, and is an appropriate setting to a series of excellent specimens of all the soda salts produced by the ammonia process, while the existence of bleaching-powder in the case demonstrates the possibility of chlorine-recovery in the Solvay process. This specimen—indeed, the whole exhibit—induces the reflective visitor to marvel at the fertile ingenuity of Dr. Ludwig Mond, to whose perse-

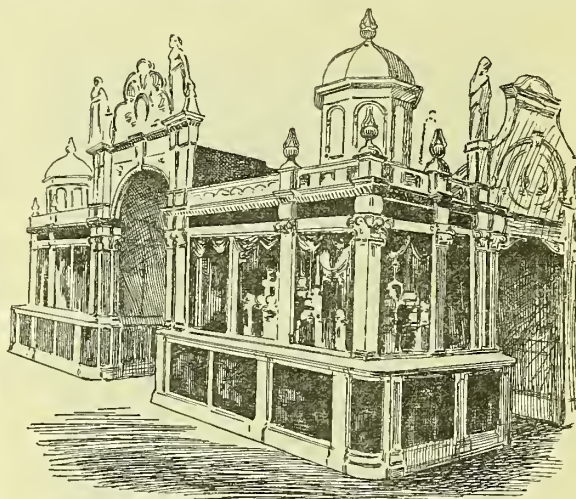


MESSRS. BRUNNER, MOND & CO.'S EXHIBIT.

verance the practicability of manufacturing alkali, as shown in the case, at cheap and at the same time fabulously remunerative rates is due. Incidental to this was the long experimental inquiry which led to the method of gasifying coal that is now receiving the attention of Parliament. There is a beautiful model of the Mond gas plant in the Grand Avenue of the Exhibition, which should be inspected. The recovery of chlorine from the ammonia-soda waste also led to the discovery of the Mond nickel process, which, it may be remembered, depends upon carbon monoxide splitting up in presence of nickel and carrying away the nickel as a gas (nickel carbonyl) to be deposited at a higher temperature. Apparently these two processes have diverted the fertile inventor's attention from production of chlorine on a scale equal to that of alkali, but we may not require to wait long for the realisation of this also.

The United Alkali Company's exhibit takes a range as wide as the firms which the company incorporated. Apart from the alkali products, there are exhibited the mineral acids, sulphuric and hydrochloric, besides acetic acid and sodium acetate, many potash salts, bleaching-powder, and chlorates, copper sulphate (Anchor brand), chrome compound, sodium silicate, cyanides, recovered sulphur in various forms, ammonia salts, calcium carbide, household and toilet soaps, glycerin, and "a hundred and one" other articles which this great Union of Leblanc soda-manufacturers continue to make. The cases in which the specimens are exhibited were used in Paris last year, and their contents are much the same; but such articles as calcium carbide and cyanides indicate that the company, in addition to concentrating the manufactures original to the incorpo-

rated houses, is extending its interests and keeping pace, as far as an old-established concern can, with modern

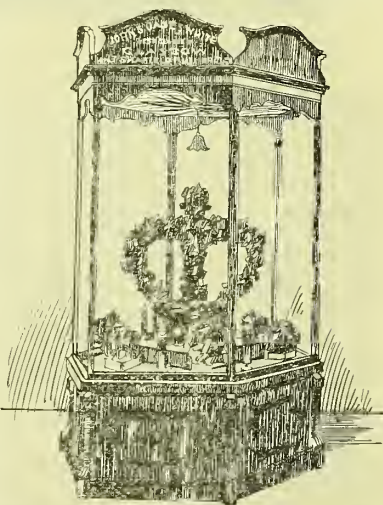


UNITED ALKALI COMPANY'S EXHIBIT.

developments and meeting new requirements in allied branches of technique.

Messrs. R. & J. GARROWAY, Glasgow, have an interesting exhibition of chemicals, which are arranged round a large model of their chemical-works at Netherfield. A prominent feature is a tall obelisk, made of sulphate of alumina. The chemicals shown are chiefly those used in arts and manufactures, such as the mineral acids, tin spirits, tin chloride, sulphites, bisulphites, and hyposulphite, alum cake for sewerage-purposes, borax, boric acid, and borates, acetates, nitre cake, sulphur, soda ash, caustic soda, &c.

Messrs. JOHN & JAMES WHITE, of the Shawfield Chemical-works, Rutherglen, have two showcases devoted to chrome products, of which they are the largest manufacturers in the world. We give a sketch of the smaller case, which contains some magnificent crystallisations of bichromates and chromates, the central crown standing nearly 3 feet high. It has the rich blood-red colour peculiar to potassium bichromate in mass. The larger case contains samples of the ores which are employed in making chrome compounds, an exceptionally complete series of the latter, especially of articles employed in dyeing and in pigment manufacture, besides by-products.



Messrs. JOHN RILEY & SONS, Hapton Chemical-works, near Accrington, exhibit fine crowns of copper sulphate and alum. They are the makers of the "Eagle" brand of copper sulphate, and are manufacturers of mineral acids, sulphuric, hydrochloric, and nitric, of which specimens are exhibited. Arseniates and stannates are also amongst the chief products of this firm's factory.

The PATENT BORAX COMPANY (LIMITED) have a tastefully decorated stand, in which are exhibited the crude borates from which borax is manufactured, and in the corners of the case there are exceptionally fine crystallisations of borax. Chiefly through this company's persistent advertising borax

has during the past twenty years become an extensively used detergent, and the exhibit includes more than a dozen things which are popular in the household and in laundries. Besides these we noticed many articles which it is peculiarly the province of the pharmacist to sell—*e.g.*, borax, glycerin, "Beauty" cold cream, and assorted toilet soaps, shaving-soap, tooth-powder, toilet-powder, perfumed "soluble" borax, a speciality for delicate skins, and boroxaline "Parisienne" for the bath. The company put these things up in tasteful style. This exhibit really furnishes us with

A CONNECTING-LINK

between chemicals and oils. Of these exhibits the most comprehensive is that of PRICE'S PATENT CANDLE COMPANY (LIMITED), Battersea, S.W., which is in a magnificent case, each of the four parts being devoted to a particular department of the company's manufactures—candles, night-lights, soaps, and other toilet-products, and glycerin with various galenicals in which it is an important constituent. This last-mentioned section shows a familiarity with therapeutics which indicates that the company is determined to have a reputation for more than a pure glycerin, because we noticed a number of new medicinal glycerols, which, as far as could be ocularly determined, are well prepared. These include a compound glycerol of hypophosphites, which is a bright and neutral solution with hypophosphites of lime, potash, iron, manganese with quinine and strychnine; a compound glycerol of magnesium sulphate; and glycerol of malt in a variety of combinations with alteratives, laxatives, and tonics.

Messrs. J. C. & J. FIELD (LIMITED), of Lambeth, have one of the prettiest cases in the Exhibition. It contains, besides night-lights, candles, and soap, some samples of perfumery and dentifrice. Messrs. LEVER BROTHERS (LIMITED) have two distinct displays of Sunlight and other soaps with which their names are associated; and Mr. RICHARD ARMSTRONG, of Preston, exhibits an attractive ammonia soap-powder. The CHISWICK SOAP COMPANY confine their exhibit to soft soap and various specialities; but Messrs. ISDALE & MCCALLUM, of Paisley, have a very wide range of soap-products, and one has an opportunity at this exhibit of tracing soap-manufacture from the start to the finish. Besides household and toilet soaps the firm show glycerin and other by-products of soap-manufacture. The largest exhibit in this department is made by Messrs. OGSTON & TENNANT (LIMITED), of Glasgow, an amalgamation of two of the oldest firms of soap-manufacturers in Scotland. Their exhibit is distinctly national in tone—by that we mean Scotch—a model of Balmoral Castle being the *pièce de résistance*.

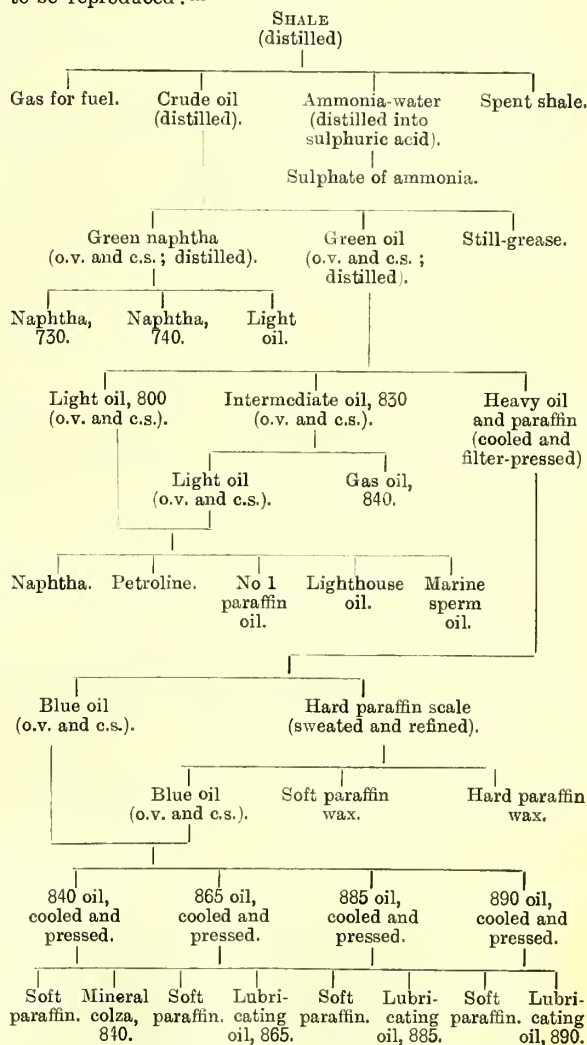
VARNISHES.

The exhibits of oils, paints, and varnishes are rather interesting. In the Main Avenue Messrs. MANDER BROTHERS, of Wolverhampton, have placed an attractive stall representing a Moorish building, where one can rest and write a letter. Specimens of resins used in the manufacture of varnishes, and of wood coated with the varnishes, are the solid attraction of the exhibit. Another one which especially interests pharmacists on account of the magnificent collection of resins exhibited is that of Messrs. WILKINSON, HEYWOOD & CLARK (LIMITED), Caledonian Road, N., a company whose history as a varnish-making house goes into three centuries by dating back to 1770, and who have kept pace with the many developments in this business, for during the past generation chemical investigation and research have gone hand in hand in their factory with manufacturing processes. This is a department in which continental varnish-makers have endeavoured to outbid the old-established houses in England, but with indifferent success, for varnish-making cannot be learnt by the test-tube method, although it is helpful in elucidating difficulties and determining the qualities of the constituents. Messrs. Wilkinson, Heywood & Clark's exhibit contains some beautiful specimens of work done with their varnishes and colour-enamels, not the least interesting being a series illustrating the application of the dipping-process, which gives a remarkably brilliant and smooth surface, even in the case of vermilion enamels. Messrs. A. B. FLEMING & CO. (LIMITED), Edinburgh, also exhibit in this department; and Mr. JAMES WHITELAW, chemist and druggist, 496 St. George's Road, Glasgow, is the only retail chemist who exhibits in this group. Violins

are shown by two Glasgow makers, in both of which instances the violins are varnished with Whitelaw's "Cremona" amber varnish. It is largely on the varnishing that the tone of a violin depends, and Mr. Whitelaw has discovered something of the skill of the old masters of this art-craft.

THE MINERAL-OIL INDUSTRY.

There are four exhibits of mineral-oil and wax products—namely, Broxburn Oil Company, Pumpherston Oil Company, Young's Paraffin Oil Company, and the Burmah Oil Company. The first three are all Scotch companies, and all show practically similar products, such as mineral naphtha, gasoline, petrole, paraffin burning-oils, lighthouse-oil, gas-oil, lubricating-oil, paraffin scale, and refined wax of various melting-points, candles, and sulphate of ammonia. The founder of the mineral-oil industry was Dr. James Young, who in 1849 erected works at Bathgate, and fifteen years later works at Addiewell, both of which passed into the hands of the Young's Company in 1866. In their exhibit is a model of the patent manual gravitation retorts, showing the latest development of that description of plant. In the Broxburn Oil Company's case is a "tree," showing the various products from shale, which is sufficiently interesting to be reproduced:—



When the shale, which is mined like coal, is distilled, crude oil and ammonia-water are produced. The ammonia is passed into sulphuric acid, and sulphate of ammonia is formed, which is largely used as manure in agriculture. A certain amount of gas is also produced, and this is utilised as fuel. The crude oil is again distilled, and on fractionation yields green naphtha and green oil, a quantity of grease

being left in the still. Green naphtha is treated with oil of vitriol and caustic soda (o.v. and c.s.), and the green oil in a similar manner, the products being separated from each other by repeated fractional distillations. The solid paraffin is separated from the heavy oils by cooling in refrigerating-machines, and thereafter filtering through filter-presses. In this manner are obtained every variety of hydrocarbon oil and wax, from the lightest mineral spirit of sp. gr. 730 to the hardest solid paraffin having a melting-point of 140° F. upwards. The ordinary naphthas are 730, 740, and 745. Burning-oils are those with a sp. gr. between 800 and 810. The 800 oil has a flash-point of 110° F.; 807, flash 120°; and 810, flash 150°. The last is usually the quality of lighthouse-oil. The so-called water-white oil is specially treated with chemicals to remove impurities, and is used for continuous-burning lamps for buoys, which can get re-trimmed only at long intervals, from a week to a month, and it is also used for petroleum-motors. Marine sperm oil has a sp. gr. of 830 and a flash-point of 230° F., and is used on board ships as being specially safe; even at the temperature of boiling water it does not give off sufficient vapour to ignite though a light were applied to it. The intermediate oils, 840 to 870, are used for gas-making. The gas is very pure, and of a highly illuminating power, and is largely used for enriching coal-gas and water-gas. Lubricating-oils are those between 865 and 895. They may be used alone or mixed with vegetable or animal oils. Mineral oil prevents the spontaneous combustion of cotton-waste which sometimes takes place with vegetable oils, and they are more valuable as lubricants for machinery. They do not split up, as vegetable oils do, at a high temperature, and give free fatty acids, and their viscosity decreases less on heating than do some other oils. The usual grades of solid paraffin have setting or freezing points of 100° F., 110-112°, 118-120°, 125-127°, and 130° and over. The principal use of solid paraffin is in the manufacture of candles, for which a wax having a setting-point of about 123° F. is employed. This particular degree of hardness is, of course, obtained by melting together waxes of different melting-points; and in candle-factories it is common to find foreign scale and Scotch scale being mixed to produce the desired result.

A curious instance of the great difference which a few degrees in melting-point make is seen in the exhibit of the Pumpherson Oil Company (Limited), where are two slabs of hard paraffin, one melting at 118-120° F. and the other at 125-127° F. The former, though not exposed directly to the sun's rays, has bent, but the harder wax is quite rigid, so that one sees at a glance why candles require 125° F. wax.



Closely allied to these exhibits is that of Messrs. STERN BROTHERS, 57 Gracechurch Street, London, E.C., which,

however, deals solely with petroleum products, and includes all that are pharmacopœial, but really exhibits the variety of distillates and products obtainable from crude petroleum. Naturally, lighting and lubricating oils form the major part of the exhibit; but we noticed some excellent specimens of paraffinum molle, and of petroleum oil which is water-white and free from sulphonic compounds, that being a speciality with Messrs. Stern. "Sternoline" oil for screw-cutting and for hydraulic machinery may, it is claimed, be mixed with nineteen times its volume of water, and will yet prove a good lubricant.

While dealing with lighting-oil we may mention that there is a good show of acetylene-apparatus in the grounds.

Glasgow is a big centre for the grocery trade, so that it is not surprising to find that

DRINKS AND FOOD

are well represented in the Exhibition. We did not, however, find anything strikingly novel in this department, which was not mentioned in our first report. Perhaps the most attractive exhibit is that of Messrs. CROSSE & BLACKWELL, which is placed in a magnificent show-case of fumed oak. In a section of this is a mutoscope, with several magnifying-glasses in front thereof, which displays a living picture of that portion of Shaftesbury Avenue in which the firm's works are situated. This always has a little crowd of observers around it, and they do not fail to inspect the contents of the cases—an indirect object of the display. This arrangement of the mutoscope is, by the way, an excellent window-attraction, which Messrs. A. & F. Pears (Limited) are utilising with advantage in their Oxford Street headquarters. Cocoa and chocolate are exhibited by Messrs. J. & S. FRY & SONS (LIMITED); by Messrs. LIPTON (LIMITED), who have recently added the manufacture of these goods to their other departments; and by the SOCIÉTÉ ANONYME DES FABRIQUES DE CHOCOLAT ET CONFISERIE, the makers of Klaus's chocolate. Messrs. VAN HOUTEN & SON have a pavilion in the grounds which is well patronised for an afternoon cup of cocoa.

Patent foods are represented by Messrs. BRAND & Co.'s essences and invalids' foods, Lipton's fluid beef, a special stall devoted to the PROTENE COMPANY'S products, which now number forty different kinds of nutriment representing the proteid constituents of milk in combination with other essential foods. MELLIN'S FOOD (LIMITED) exhibit the popular infants' food as well as cod-liver-oil emulsion, and give away wonderfully clever advertising devices. INTERNATIONAL PLASMON (LIMITED) have a tasting-stall devoted to their popular and sustaining food-substance, the newest thing shown being a Plasmon luncheon for cyclists and travellers, which goes into the jacket pocket, and contains a meal which is sufficiently sustaining to keep one going between breakfast-time and a 7-o'clock dinner. This is a fair test of Plasmon's proteid power. BOVRIL (LIMITED) make a full display of their manufactures, and are liberal in allowing visitors to sample.

As seasoning to the varied diet which this section affords there are many condiments, and at least one salt, the ubiquitous "Cerebos," which a pharmacist's skill and enterprise have perfected and popularised. Of drinks, too, there is "enow." Messrs. WM. CORRY & Co. (LIMITED), Belfast, SCHWEPPES (LIMITED) (the Glasgow branch), and G & P. BARRIE, Dundee, exhibit aerated waters in good style. There is plenty of Mountain Dew to qualify these waters, if need be, and something more innocent in the shape of sugar by the GLEBE-SUGAR REFINING COMPANY, of Greenock, and the SANKEY SUGAR COMPANY, of Earlstown, which should be inspected. One of the prettiest exhibits in this food-department is made by Messrs. J. & G. COX (LIMITED), the manufacturers of gelatin, table-jellies, and other culinary requisites, who demonstrate daily how their products can be made into appetising dishes.

AGRICULTURE.

A separate pavilion is devoted to exhibits dealing with agricultural science, apart from machinery, and there is here much that is of interest to pharmacists. The first object to meet the eye is the splendid trophy of the GERMAN POTASH SYNDICATE, of Stassfurt, which shows a miner handing up a block of salt to one of two allegorical figures seated on a pedestal of the same material, the Spirit of the

Mine overshadowing the whole. The exhibit is most extensive, and contains specimens of the various minerals and products manufactured by the syndicate. In addition to these, there is a very fine collection of photographs showing the value of potash as a plant-food. It is, perhaps, not commonly known that the world's supply of potash practically comes from the mines in the Stassfurt district. Up till fifty years ago the salt-industry in Stassfurt consisted simply in evaporating the natural brine obtained from the salt springs, but about the middle of the century borings were made in the hope of finding more profitable salt-deposits. Immense quantities of rock-salt were discovered at a depth of about 1,000 feet, but immediately above these the shafts passed through a layer of minerals whose value



was not known at the time. These are now the source of most of the potash used in the world to-day. Upwards of three million tons were produced last year, of which about one-half was used in agriculture, as compared with less than 200,000 tons in 1880. Even this large consumption is bound still further to increase, for Great Britain does not use a sixth part per acre of cultivated land compared with Holland, Belgium, and Sweden, while science has completely proved the high value of potash as a manurial agent. About 14,000 miners and labourers are employed in the mines alone in addition to the thousands of hands that are necessary for the distribution of the products throughout the world.

Another exhibit of great interest is that of the NITRATE OF SODA ASSOCIATION, which controls the great nitrate-industry of Chile. There is here also a trophy which represents in a series of cubes the production of nitrate since 1830. In that year 800 tons were produced, last year 1,340,390 tons were exported, and it is rather interesting to observe that Germany took about one-third of the total

quantity, while the United Kingdom only took one-tenth. Here, too, are shown photographs of the results obtained by using nitrate as a manure, but it is to be observed that the best results were got when potash also formed part of the manurial combination. A model of the ground where the caliche is collected and treated is one of the objects in the court.

THE SULPHATE OF AMMONIA COMMITTEE are also in evidence with specimens of potatoes and turnips grown with and without sulphate. There are fine displays of fertilisers, dissolved bones, and superphosphate, and mineral phosphates from Christmas Island, Algiers, and Florida, containing from 60 to 86 per cent. of phosphate.

A peculiar substance, called gum tragacanth, is exhibited by the GUM FRAGASOL SUPPLY COMPANY (LIMITED), of Liverpool. It is a substitute for, and is said to have all the properties of, tragacanth. It is made from the seed of *Ceratonia Siliqua*, which resembles quince, and which Messrs. Norman Tate & Co. have found, on analysis, to contain: Oil, 0.58 per cent.; albuminoid matters, 3.29 per cent.; mucilage, gum, &c., 72.05 per cent.; woody fibre, 7.18 per cent.; ash, 1.56 per cent.; and moisture, 15.34 per cent. The gum is prepared in various forms, the finest resembling tragacanth in colour and properties, and is used as a size in textile industries, although other uses for it are suggested.

SHEEP-DIPS.

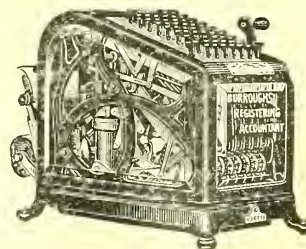
Mr. ALEXANDER ROBERTSON, of Ohan, has a nice show of his Highland dip and powder dip, and various specialties, such as maggot-wash, carbolic soft-soap, weed-killer, terebene embrocation and terebene balsam, cresyl-phenol disinfectant, and sulphur candles. Messrs. MORRIS, LITTLE & SON, Doncaster, display their fluid and powder dips, weed-destroyer, carbolic soap, and foot-rot cure; and Messrs. TOMLINSON & HAYWARD, Lincoln, glycerin dip, yellow-paste dip, and "Eureka" weed-killer. LAIDLAW, MACKILL & CO. (LIMITED) exhibit tobacco dips in the Industrial Buildings, where also MORRIS LITTLE & SON show their phenyle disinfectant, toilet, carbolic, and dog soaps. We have all along held that those pharmacists who allowed the trade in these poisonous dips and weed-killers to go past them into the hands of unqualified agents have made a mistake, for that trade is just on the same level as that of dispensing ready-made pills or tablets of Bland's pill with arsenic, and it pays a great deal better. The sooner qualified men realise this the better for themselves and for the trade as a whole. We cannot afford nowadays to despise the 15 per cent. on a 4½d. bottle of tablets. Why should the 10 per cent. or 15 per cent. on 5l. worth of sheep-dip not be sought for?

Cattle-spices are shown by THORLEYS, and ROGER ERRINGTON, Sunderland, and biscuits and meal by SPRATT'S PATENT.

Another exhibit in this department should be seen by the economic botanist—namely, that of DRUMMONDS, seedsmen, of Stirling and Dublin, who have a very fine show of ryegrass, clover, and natural grass seeds, together with hunches of all the grasses.

MISCELLANEOUS.

The Grand Avenue and the Avenue Bridge contain a number of exhibits which should not be missed. We were particularly interested by the contents of a case in which Dr. Ludwig Mond's gas-producing plant is shown in model, so that the process can be traced as it is worked with and without the recovery of ammonia as sulphate. In the Grand Avenue are several exhibits of surgical instruments, chiefly by local houses, and one of them contains the pocket surgical case used by Dr. David Livingstone during his African travels. The adding-machine, manufactured by the BURROUGHS ADDING AND REGISTERING MACHINE COMPANY (LIMITED), of Nottingham, attracted our attention, partly on account of its intrinsic interest, and partly because Messrs. Boots (Limited) have about a



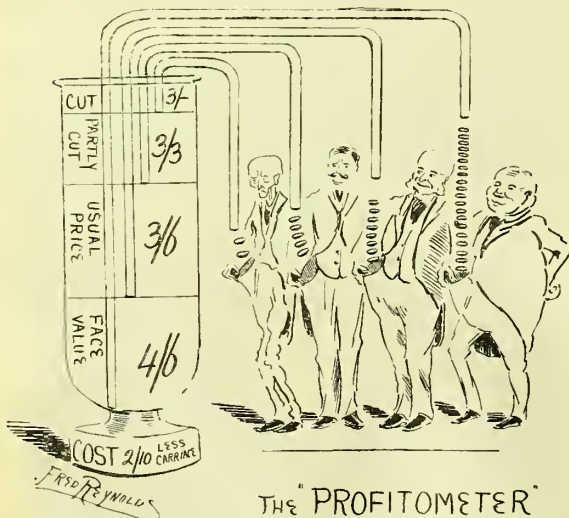
dozen of them in use, the latter fact demonstrating to what enormous proportions the store trade in pharmacy has reached. The machine resembles a typewriter, and has columns of figures for pounds, shillings, and pence. The operator manipulates these keys as in a typewriter for the amounts which he or she wishes to "tot" up, and it prints the lines one below the other in columns.

When the list is complete the mere pulling of a lever adds up the lot and prints the total of the several amounts. The machine adds up to within a farthing of a million pounds. Why it stops there we cannot tell, nor could the little girl who operated for our delectation, but we daresay the extra farthing will not bother any who read this. It is a most useful machine for those who record their cash sales by the check system, as a very large number of checks can be totted up in a very short time,

and with absolute accuracy. It differs entirely from calculating-machines hitherto exhibited at international exhibitions, and is much quicker and neater in operation. It costs 60l.

Messrs. JOHNSON & JØRGENSEN make a good exhibit of glass-manufactures, which include Pothe's well-known pharmaceutical bottles. A sketch of the case is given above. Perhaps there are other things in the Exhibition which might have been mentioned, but these are notes made during the past six weeks, and we believe we have fairly exhausted the show.

The Art of Pharmacy.



This sketch it depicts, with an eloquence pat,
An instrument lately invented
To estimate profits of no matter what—
And hunger and want to prevent it.
It shows with a graphic convincing aplomb
That makes the most reckless man splutter,
That fat is the fate of the man with the "com.,"
And lean is the lot of the Cutter.

Personalities.

DR. MAURITS GRESHOFF has been appointed Director of the Colonial Museum at Haarlem.

MR. J. H. BOLTON, chemist and druggist, Southgate, has been re-elected a member of the Edmonton School Board.

SIR HENRY E. ROSCOE and Professor W. Ramsay have been elected honorary members of the American Chemical Society.

MR. W. SMITH, who has just graduated B.Sc. Durham, commenced his career as apprentice to Mr. F. R. Dudderidge, pharmaceutical chemist, Newcastle-on-Tyne.

MR. J. PRESCOTT, chemist and druggist, 3 Eltham Road Lee Green, S.E., was a successful candidate at the recent Spectaclemakers' examination, in addition to the eight names mentioned last week.

OWING to the condition of Dr. Barnardo's health the marriage of his daughter Gwendoline with Mr. Henry S. Wellcome on Tuesday was of a quite private character, and there was no reception after the ceremony.

MR. DUNCAN R. CHISHOLM, formerly a representative of the Australian Drug Company, Sydney, N.S.W., is now in this country, and proposes to take up the direct representation in New Zealand of business houses here.

MR. H. M. KYLE, M.A., D.Sc., of the Gatlif Marine Laboratory, St. Andrew's, has been appointed instructor and naturalist jointly by the Devon County Council and the Council of the Marine Biological Association.

MR. F. D. DUTTON, A.R.C.S., formerly lecturer on agriculture at the University College, North Wales, and county analyst for Carnarvonshire, has been appointed instructor in agriculture and science under the Devon County Council.

MR. WALTER GIBBONS, pharmaceutical chemist, who for thirteen years has been officially connected with the Alexandra Park Conservative Club, Manchester, and during the past year has been Chairman, was on June 21 presented with an illuminated address by the members in recognition of his services.

THE partnership hitherto existing between Mr. Spencer Hargrave, chemist and druggist, and Mr. Ernest Sanders, chemist and druggist, carrying on business as chemists and druggists at 36 Upper Jackson Street, 1 Booth Street, 21 Embden Street, and 28 Welbeck Street, Manchester, under the style of "Hargrave & Sanders," has been dissolved by mutual consent.

THE President of the Board of Trade has appointed Sir Alfred Bateman, K.C.M.G., the Comptroller-General of the Commercial Labour and Statistical Departments of the Board, to be Chairman of the Advisory Committee on Commercial Intelligence, in the place of the late Sir Courtenay Boyle, K.C.B.; and Mr. H. Llewellyn Smith, Deputy-Comptroller, to be Deputy-Chairman of the Committee.

MR. AGNEW NICHOLSON, chemist and druggist, Annan, who was one of the first to volunteer for service as compounder in South Africa, has recently returned home invalided after an attack of enteric, and has been discharged from further military service. We had a call from Mr. Nicholson one day this week, and found him to be looking exceedingly fit. He is delighted with his experience. He went out in January, 1900, and was attached to the 7th Division, which marched with Lord Roberts up to Pretoria, where Mr. Nicholson was engaged as compounder all the time. He speaks in the warmest terms of the treatment which he received from the medical officers, who, he says, were exceedingly courteous and behaved as gentlemen to gentlemen. The work was interesting, and the experience, Mr. Nicholson thinks, ought to be invaluable to all who have had it. He confessed that occasionally compounders, like others in the Army, had to rough it a bit, but that was done with the greatest cheerfulness; and although some compounders, like others, did some trenching and other fatigue duties, it was not compulsory, and was a relaxation rather than the reverse. At the time the war broke out Mr. Nicholson was in London with a view to starting in business on his own account, and he is now looking out for a suitable opening.

Observations and Reflections.

By XRAYSER.

Pleading Guilty

is the one thing which no chemist should ever be guilty of. A man with a very tender conscience may find it a little difficult to declare himself not guilty in a court of justice when the jury inside him assure him there is no doubt about the justice of the charge; but even then he can compound with his troublesome monitor by explaining that this is only one of the rules of the game, that the term "not guilty" means nothing more than telling the other side "I decline to help you to prove your case." There is abundant legal authority for this view. A plea of "guilty" only encourages the Bench to show off with a lecture on the heinousness of the offence, and this is often worse than the sentence; if only to avoid that it is always safer to show fight. I was talking with a well-known inspector lately, a man who for years has been in the habit of mowing down defendants under the Sale of Food and Drugs Act by machinery, as it were. Not once in fifty times, he told me, does one of them resist. They take their lecture and their sentence as submissively as they take their rates and taxes, as unpleasant but inevitable incidents of trade. And yet perhaps one in four or five of them has a more or less sufficient defence, by the adoption of which he could at least show that he understood his business better than my friend the Inspector.

Under such Acts

as the Sale of Food and Drug Acts and the Pharmacy Act there are innumerable technicalities of which the prosecution is never slow to avail itself. The defendant has at least an equal right to do the same. In that vermin killer case reported last week there was no need of an appeal to technicalities. The gazetted resolution of 1839 declaring that "every compound containing any poison" within the meaning of the Act, if "prepared or sold for the destruction of vermin" should be deemed a poison within the meaning of the Act, is as valid a part of the Act as the original sections passed in 1868. And as in that same resolution certain other substances were placed in the first part of the schedule, and this was not, it is impossible to construe the resolution in any other way than as explained in the leading article of the *C. & D.* last week, namely that if strychnine for instance is expressly sold for killing vermin it is taken out of the first part of the schedule and put into the second part. There is no meaning in the addition otherwise, because it adds no new poison to the schedule; it obviously only re-arranges the old list. It was a stupid resolution, I agree, and I am glad to believe that most chemists do register their sales of vermin poisons when these are specially dangerous; but I am confident that the law does not require them to do so.

The Bogus Order-form

facsimiled last week cannot well be guarded against under the present system in which business is carried on in London. I know a firm who keep nearly a dozen boys, who are despatched all round the City every morning with orders for goods which are wanted to fill that day's requirements. The orders, of course, are all on the firm's ordinary printed forms. Nothing can be easier than to get imitation order-forms printed to match the genuine ones exactly, and the warehousemen who receive these cannot be expected to watch closely the handwriting. The thieves themselves are pretty sure to upset their own scheme by some folly, such as in the Lemco case, sending

for $\frac{3}{4}$ cwt. of stuff for a boy to carry. But it is not creditable to the genius of honest business men to have to rely solely on the possible blunders of the swindling fraternity. The risk might be easily checked, however. All that is necessary for a manufacturer to do if he does not want to be robbed is that he should print his own order-forms, and supply them in little books to regular customers, with a request that they be kept by a responsible person. It would not pay the thieves to print order-forms for each individual robbery, but even this enterprise might be guarded against by adopting some special paper, or a stamp or seal of some kind. The expense would be nothing to a big firm who had these forms printed by thousands, but it would be prohibitory to a rogue who could not reckon on raiding one house more than once or twice.

Lending a Name

with the object of dodging the Pharmacy Act is obviously a stratagem which the administrators of that statute must frustrate whenever they can, but they might as well keep their hair on while they contemplate it. A young qualified chemist named Arthur Gathrie Glen, while assistant with a chemist in a Scottish town, entered into partnership with an unqualified person in another town. The two carried on a chemist's business under the style of Glen & Co., the qualified man taking no part in its actual conduct, this being left to the unqualified partner, who, in the course of his avocations, sold some poisons to an agent of the Pharmaceutical Society. For this, and for using the title chemist on the gate of his private house he was duly fined. Glen had done nothing forbidden by law, so the Sheriff had nothing to say to him. But the Editor of the prosecutors' *Journal* has remedied this reticence. According to him, Mr. Glen's conduct was "in the highest degree reprehensible"; its "exposure" "must surely be a cause of shame and regret"; it is "a great pity that there should not be some statutory power of inflicting an adequate penalty"; and "the craft would stand in a more honourable position if the list [the Register] were purged of that [Mr. Glen's] name."

Valiant Language

of this kind may be grateful and comforting to some people's feelings, but is it not, to say the least, a little undignified to rave at a man whom we have no power to punish? It is admitted that Mr. Glen did not infringe the Pharmacy Act; what was his moral delinquency? His employer, I think, had reason to complain; so too, no doubt, have those who wish to see the Pharmacy Act fulfilled in its spirit as well as in its letter. But let us be reasonable. Mr. Glen allowed his name to appear over a shop which he did not personally manage. Scores of highly respected chemists, members of the Pharmaceutical Council and others, do that for days, weeks, and months together to-day. Yes, but, they say, we take care to have qualified men to manage our shops or our branches in our absence. No doubt, but this has only been the general practice since Mr. Justice Hawkins's famous judgment in 1890. Previously it was the commonest of practices for businesses to be left in charge of unqualified assistants while the qualified proprietors went to pharmaceutical conferences or to pharmaceutical picnics. And nobody ever suggested in regard to them that the Register should be purged of their names.

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Editorial Comments.

Medical Dispensing.

AT the meeting of medical practitioners in Glasgow, which we briefly reported last week, Dr. Robertson, one of the speakers, said, "The Pharmacy Act allowed of no distinction being drawn between the selling and the dispensing of poisons. It was a well-known fact that poisons were dispensed every day throughout England by unqualified persons, who thought they were quite safe in so doing because the medicines were prescribed by their employers—doctors themselves. That was a distinct breach of the Pharmacy Act. Of course, the enormity of the extent of the practice prevented, or seemed to prevent, its being questioned; but if the Scottish doctors were to be convicted because they employed unqualified dispensers, that result must necessarily also involve the overthrow of the whole English system whenever the Pharmaceutical Society thought fit to undertake the duty." This declaration can scarcely be passed in silence, for sooner or later the Pharmaceutical Society and the General Medical Council must face the problem outlined by Dr. Robertson. It is unfortunately the fact that the preambles to the Pharmacy Acts of 1852 and 1858, and even the provisions of the 1869 Act as regards medical practitioners, are treated with much disrespect. The first declares it to be expedient that persons exercising the business or calling of pharmaceutical chemist should possess competent practical knowledge as defined by the Act and by-laws. This provision was made with the object of ensuring thorough qualification of dispensing chemists, and although its incidence was limited by the assumption of the title "pharmaceutical chemist," it nevertheless expressed the opinion of the Legislature (since then frequently endorsed) that dispensers of medicines should be properly educated and trained persons. The principle was extended by the 1868 Act to "the retailing, dispensing, or compounding of poisons," and to this there was in the Act no exemption in respect to medical practitioners, except in the case of legally qualified apothecaries, whose business the first fifteen sections of the Act do not extend to or interfere with. The 1869 Act

was passed to give a similar exemption to medical practitioners generally, but with these important reservations—viz., (1) the first fifteen sections were not to apply to “any person [then] registered as legally qualified medical practitioner” (compare with the italicised sentence before), nor to (2) medical practitioners thereafter registered if they “*have passed an examination in pharmacy*” in order to obtain their diploma. It is thus clear that pharmaceutical knowledge is considered to be essential to dispensing or compounding, and that the exemption provided for medical practitioners does not extend to their employés, as in the case of apothecaries; while we know from the Apothecaries Act that “any person who shall act as an assistant to any apothecary to compound and dispense medicine without having obtained [the assistants’] certificate shall for every such offence forfeit and pay the sum of 5*l.*” There is no reason to doubt that this special provision in the Apothecaries Act was the justification for the wider exemption extended to apothecaries by the Pharmacy Act; but it has had a lamentable influence upon pharmacy in these latter days owing to the general assumption that this assistants’ certificate has wider authority than is given to it by the 1815 Act. Schools of pharmacy in London have also helped to foster the popularity of the certificate by using the examination as a pre-Minor test, while the influx of women into pharmacy has greatly enhanced its importance. It is well known that the growing desire for profitable occupations for women has induced large numbers to seek employment as dispensers. Ladies’ papers call it “pharmacy,” but comparatively few women do qualify under the Pharmacy Acts. Ten times more who enter the calling soon find that they have neither the means nor desire to take up a course of training extending to three years at the least, but as some certificate of their ability is necessary they compromise by preparing for the Apothecaries’ examination. That is the extent to which their means, and in some cases their abilities, are able to carry them. Ten years ago all the desire amongst women who entered pharmacy was to become competent pharmacists, and several have distinguished themselves. Now the number entering is very much larger, and the tendency is mainly to get the easiest “certificate” in the quickest way. The following notes of the last Apothecaries’ examination, which we recently received from a lady, are pertinent at this moment:—

The Society of Apothecaries, London, held the Assistants’ examination at the Apothecaries’ Hall, Blackfriars, on April 23. It was a new feature to start on the Tuesday, as previously the examination had always begun on the fourth Wednesday of January, April, July, and October. The total number of candidates was just over 100, 74 per cent. being women. Several nurses were up, but as they did not all appear in uniform they could not be distinguished as such. There were also sisters of mercy among the candidates.

The examination started at 10 o’clock, but each individual candidate had his own appointed time. The examination is divided into two parts, practical and theoretical. The theoretical is subdivided into two parts, chemistry and materia medica with pharmacy. It was quite late each day before the results were made known. In some cases the candidate did so badly that he or she knew all hope was over. Otherwise they remained in suspense until called in one by one to hear of their pass or failure. To the lucky ones, on hearing of their success, the certificate, duly signed, was presented; and out of all who entered for the examination fifty-one passed.

While the examination was in progress knots of anxious students in earnest conversation were grouped about in the waiting-room, the strong ones helping the weak, cramming them with poison-doses or incompatibilities; students from various colleges fraternising, comparing the different methods of teaching. Between 4 and 5 in the afternoon there was a lull in the examination while tea was provided. But even then the general conversation was on the British Pharmacopœia.

The Society of Apothecaries requires no evidence of training from the candidates, and grants the certificate to

persons 17 years of age who satisfy the examiners. Nevertheless this certificate is treated by the Local Government Board as equal to the Pharmacy Act qualification for Poor-law appointments as dispensers, and there is a general feeling in the medical profession that it is a legal qualification in the same sense as the certificate of chemist and druggist. This assumption is having a most serious influence upon pharmacy, and it is time for the Pharmaceutical Council to do something to combat it. It should be made perfectly clear to medical practitioners who are not licentiates of the Society of Apothecaries that dispensers who have not passed the Minor examination of the Pharmaceutical Society cannot legally compound and dispense poisons in Great Britain. If such practitioners employ, for example, an apothecary’s assistant, the compounding and dispensing must be done under the direct supervision of the medical practitioner. The Pharmaceutical Council about a year ago appointed a committee to inquire into the whole subject, but it has, as far as we have been able to gather, done nothing. Now is the time for this committee to wake up, and we would especially call the attention of the members of it to the provision in the 1859 Act in regard to the exemption of medical practitioners. Pharmacy has during the past twenty years been a diminishing subject, so far as the curriculum is concerned, and some licensing bodies grant diplomas without subjecting the candidates to an examination in practical pharmacy. This matter ought to be investigated, seeing that pharmaceutical knowledge is a condition for placing medical practitioners on a commercial level with chemists and druggists without further examination.

British Proprietaries in France.

WE have frequently called attention to the traffic that has been carried on in France in imitations of English proprietary medicines, which has been a profitable business for some people, and has not yet by any means disappeared. At one time it was conducted with such impunity that some Paris wholesalers were known to quote certain of the English preparations with two prices—for instance, the real article 2*fr.* and the imitation 50*s.* The imitations were so well done, even to the Government stamp, that the owners of the preparations had difficulty in distinguishing between the two. One of the most counterfeited articles was Henry’s calcined magnesia, and in regard to it we quote the following French opinion recently published:—

In the world of pharmacy it has long been customary to make use of magnesia-bottles bearing the words “Henry’s Calcined Magnesia” embossed in the glass—the cork being, in addition, covered with an imitation English Government patent-medicine stamp, the bottle being generally enveloped in a prospectus in English reproducing the one which accompanies the bottles prepared and sold by the firm Henry, of Manchester.

In 1864, the Mr. Henry of that date was anything but pleased at this treatment, and he verified the usurpations and summoned a considerable number of pharmacists. The Syndicate of Pharmacists of the Seine thereupon undertook the defence of the prosecuted chemists on the ground that the latter had used wrapper, prospectus, and bottle in good faith. During the hearing the defendant claimed from Mr. Henry, as being a foreigner, the payment of a sum of 10,000*fr.* as caution-money (*judicatum solvi*), whereupon Mr. Henry discontinued proceedings for the time being.

What had taken place was sufficient to show pharmacists the danger to which they were exposed and the line of conduct they ought to follow in future. Many bottle-makers ceased manufacturing bottles bearing the inscription “Henry’s Calcined Magnesia,” and pharmaciens were more cautious about selling the imitation. Besides, it was evidently more correct not to sell under this name a magnesia which was not Henry’s magnesia. True, they had only done so from habit, and without intention of creating any confusion; still, legally speaking, it must be recognised that whoever places on a product of his own manufacture the name of another person usurps the name and is

amenable to the law. Accordingly, it was almost certain that a condemnation would be pronounced whenever the Court should be called upon to decide on the nature of a similar usurpation.

This is exactly what happened at Angoulême some time ago. The judgment given by the Civil Court of that town clearly indicates the circumstances of the case. Mr. Henry brought another action against a pharmacist of that locality accusing him of selling bottles of magnesia which did not come from his own firm, but the label of which bore on the very first line the words "Henry's Calced Magnesia," the prospectus, bottle, Government stamp, and wrapping paper of the original being closely imitated. The pharmacist informed him that the bottle had been delivered to him by a neighbouring Syndical Drug-stores. The same thing happened with regard to two bottles found in possession of another pharmacist. On the same day a search was made in the Syndical Drug-stores, and only one bottle of Manchester make was discovered, though it was asserted that these stores had supplied the bottles to the two pharmacists in question. The Syndical Drug-stores were asked to pay Mr. Henry the sum of 3,000*fr.* damages. After a lengthy and very complete examination of the charges brought forward by Mr. Henry, a judgment was given in his favour, and the trademark "Henry's Calced Magnesia" was recognised to be the exclusive property of Mr. Henry, whilst the Syndical Drug-stores were condemned to pay damages for selling products in bottles that were a servile reproduction of those intended to receive his own products. At the same time the Court condemned the proprietors of the Syndical Drug-stores to pay all expenses.

One of the grievances felt by English manufacturers is that the fact of imitating the British Government P.M. stamp abroad is not in itself an offence, so that the imitators are materially assisted by being able to reproduce it and thus give what is to the ordinary purchaser a guarantee of genuineness, which ought not to be permitted. This tolerance on the part of the British authorities renders the efforts of the imitators comparatively easy, and is largely taken advantage of on the Continent, where many thousands of these fraudulent stamps are used annually.

Law's Indulgences.

MR. JOHN WHITE, F.I.C., the public analyst for Derbyshire, was not aware until Monday that when people go to chemists and druggists for sodium bicarbonate they ask for "carbonate of soda." Indeed, he stated in the witness-box, and in support of his certificate upon which legal proceedings were instituted against a chemist and druggist, that Na_2CO_3 is carbonate of soda. But Mr. White's tastes were consistent with his theory, for he expressed a preference for effervescent drinks made with Na_2CO_3 , and apparently would not object to have his green peas boiled in a solution of the same salt. The taste is decidedly peculiar, but without going further into Mr. White's knowledge of the chemistry and uses of the carbonates of soda, we desire to congratulate the defendant and the Chemists' Defence Association on the able manner in which they demonstrated that it would be dangerous to the public if retailers were to carry Mr. White's theory into practice. It was a frivolous prosecution, undertaken without due consideration, and for no public good that we can perceive. The case demonstrates once more the need for some better arrangement than at present exists for testing the quality of goods which come under the purview of the Acts. The custom now in most instances is for the inspectors and public analysts to work hand in hand. This arrangement is not contemplated by the Acts, which rather give the analyst a quasi-judicial position that the hand-in-hand system utterly destroys. The carbonate-of-soda case demonstrates the hardship to retailers that occasionally arises when proceedings are taken upon analysts' reports without due consideration of trade custom and public demands. Some local authorities always seek independent advice, and we see no reason why this practice should not become general.

It will be seen from a note on page 1034 that the Appeal

Court has again been asked to decide whether the word "person" in an Act of Parliament includes a limited company. The action was against a bank and its manager, and Lord Tenterden's Act, in a clause of which the word "person" occurs, was brought in. The bank wished to get the advantage of this clause, but the plaintiff objected, arguing that the word "person" does not include a limited company. This he supported by the exact argument urged in the London and Provincial Supply Association case, through which limited companies escaped the provisions of the Pharmacy Act. A company cannot pass examinations, said the Judges in that case, therefore companies cannot be "persons" for the purposes of the Pharmacy Acts. That limited companies have no handwriting, and cannot comply with the provisions of Lord Tenterden's Act, was urged by the plaintiff's counsel in the present case. The analogy seems perfect, and yet the Master of the Rolls and Lords Justices Vaughan Williams and Stirling decided that for the purposes of Lord Tenterden's Act the word "persons" includes companies. If Lord Justice Stirling's argument, which we quote, had been applied in the pharmacy case, limited companies would have been unable to circumvent the Pharmacy Act by calling themselves corporations. To say that because a company cannot qualify it ought to be allowed to carry on the business of a chemist and druggist is no more reasonable than to say that a person, who is so physically afflicted that passing an examination would be to him an impossibility should be regarded as outside the Pharmacy Act and capable of keeping open shop for the sale of poisons through a qualified person. The bank case once more demonstrates the grip that corporations have taken of the British economy, for it proves that companies are persons when it is to their advantage to be so regarded, and they are corporations outside the limitation placed upon human beings when it is inconvenient for them to take the disadvantages imposed upon "persons."

ADVANTAGES OF BRITISH RULE.

The chemists of Johannesburg have yet to discover wherein they are the better under British rule. The military authorities appear to be so imbued with store-prices that they are actually forcing low rates upon traders. We printed in our issue of June 8 a list of such prices, which chemists must exhibit in their shops, and the list contains such figures as 5½*d.* and 10½*d.* A Johannesburg chemist writes to remind us that under Boer rule the smallest coin was the convenient threepenny-bit, so dear to the church-plate, and no transaction was ever done at less than 3*d.* Apart from the disastrous lowering of the limit, it is complained, we believe fairly, that the scheduled articles cannot profitably be retailed at the official prices. The sooner the country is pacified the better for the chemists, but we fear that they will have some trouble in restoring the threepenny unit.

CARBOLIC-ACID ABSORPTION.

It looks as though the absorptive powers of the skin as regards carbolie acid have hitherto been under-estimated. Some months ago we reported the sudden death from carbolie absorption of a young farm-labourer, who had broken a bottle of carbolie acid in his trousers-pocket, and got his leg soaked with the poison. At a Board of Trade inquiry held at Liverpool (see page 1012) into the deaths of three seamen, Dr. Dupré said the absorption of carbolie acid had primarily been the cause of the deaths. Similarly the accident which caused the death of Mr. George Cockburn (page 1034) is obviously a case of shock following carbolie absorption, and therefore it is advisable that greater precautions be taken in the handling of this acid, which,

although perhaps not so escharotic as vitriol, seems to possess greater facility of absorption into the body. None of the medical text-books lays great stress on this point, and the *Medical Press* is chary of accepting the absorption theory, as enunciated by Dr. Dapré; but it is evident that carbolic acid is not generally regarded as so dangerous an external application as these cases would seem to warrant. In Martindale's "Extra Pharmacopœia" we find brief mention (ex the *Lancet*) of the fact that compresses soaked with 5-per-cent. solution of phenol may cause coma.

Bogus-order Charges.

MONDAY mornings at Clerkenwell Police Court are generally busy, but Monday last, June 25, was a "record" according to the obliging officer at one of the doors. The precincts of the court were crowded by a heterogeneous mass of humanity, and it was not until 11.15 A.M. that Mr. Bros, the presiding Magistrate, got the petty police summonses disposed of. After the last of these—against four precocious errand-boys for playing cards in the streets—had been adjudicated upon, "Frederick Williams" was called, and a spruce young man, slightly in need of a shave, stepped briskly into the dock. He was described in the charge-sheet as a "chemist," and the charge against him was of "attempting to obtain, by means of a forged order, six dozen tooth-brushes, value about 15%, from Messrs. G. B. Kent & Sons (Limited), 75 Farringdon Road, E.C." The accused man, whom we present from a sketch



"FREDERICK WILLIAMS."

taken in court by our artist, looks about 28 or 30 years of age. He was dressed in a navy-blue jacket suit, and stood with his hands folded in front of him. The only indication that he showed of feeling his position was an occasional nervous twitching at the corners of the mouth. He listened attentively to all that was going on, but had no questions to ask any of the witnesses. Mr. Muskett, of the firm of Messrs. Wontner & Son, solicitors, Ludgate Hill, E.C., conducting the prosecution (on behalf of the Wholesale Druggists' Trade Protection Society) at the instance of Messrs. Wright, Layman & Umney (Limited), stated that several counterfeit blank-order forms, similar to that presented to Messrs. G. B. Kent & Co. (Limited), had been found by the police officers on searching the prisoner, whose real name was not as the prisoner had given it, but Archibald G. MacIntyre, formerly a clerk in the employ of the prosecutors. The solicitor also called the Magistrate's attention to the particular page in the last issue of THE CHEMIST AND DRUGGIST, in which the notification of these frauds upon wholesale houses appeared. It was owing to that warning, he explained, that Messrs. Kent's representatives, being suspicious of the genuineness of the order, telephoned to Messrs. Wright, Layman & Umney before executing it.

Mr. Muskett then called Mr. Walter Tustin, manager to Messrs. G. B. Kent & Sons (Limited), who deposed that on Saturday afternoon a lad presented to him an order for six dozen brushes on a form used by Wright, Layman & Umney (Limited), but, being suspicious as to its genuineness, the witness telephoned to that firm. In consequence of the reply received a dummy parcel was made up and handed to the lad, who left the premises. The lad was followed, and was seen to join Williams a short distance off. The police were communicated with, and the prisoner was arrested.

The story of Herbert Andrew Scriven, a bright-looking lad, employed as a store-keeper by a firm in Farringdon Road, was to the effect that the accused (whom he had never seen

before) accosted him in Farringdon Road, and asked him if he wished to earn 6d. "In what way?" inquired Herbert. "Come across the road and I'll show you," said the prisoner. Williams then gave the boy an order for brushes, told him to take it to Kent's, say he came from Wright, Layman & Umney's if inquiries were made, and bring the parcel he received back to him. He corroborated Mr. Tustin's evidence in other particulars, and Williams was remanded for eight days, when Mr. Muskett proposes to lay the case more completely before the Court.

At the Mansion House Police-court on June 26, Frederick Smith and Frederick Williams, *alias* McIntyre, were charged with forging and uttering an order for the delivery of 56 lbs. saccharine, valued at 128/ 16s. Smith presented at the offices of the Saccharine Corporation (Limited) an order, purporting to be signed by Messrs. Wright, Layman & Umney, for 56 lbs. saccharine, which he took away in a van. Afterwards it was found the order had been forged, and the police traced the saccharine to Williams, who had left the tins at a fishmonger's shop. Prisoners were committed for trial.

Our reporter saw in the Clerkenwell court Mr. Charles Umney, the managing director of Wright, Layman & Umney (Limited), and learned from him that such fraudulent orders have been very frequent throughout the trade of late; not only his company but other firms have been seriously defrauded. His company's name, for instance, was used in order to obtain 120% worth of saccharine and 8% worth of assorted patent medicines, and 300 oz. of sulphate of quinine was also obtained from his company by the aid of a fraudulently printed and written order which purported to have been issued by a well-known chemist and druggist.

We have thus every reason to believe that the caution we gave last week has been productive of satisfactory results, for, apart from the proceedings above noted, the police are now in possession of facts which are likely to put a stop to these fraudulent transactions. Any firms who have received or executed such bogus orders should communicate the facts to Mr. Muskett.

We are indebted to Mr. George Eade, Goswell Road, E.C., for an order which his firm received last Saturday, purporting to come from "Corbyn, Stacey & Co. (Limited)." The order is in the same style as the Sutton order which we reproduced last week, but the type is different. The handwriting is, however, identical. The order was for "12 doz. small gout pills, 3 doz. 2s. 9d. do. do." It was to be sent by "bearer for our account," and was initialled "G. H. F." Messrs. Geo. Eade & Son do not, unless in exceptional circumstances, give goods to bearer, preferring to deliver them at the warehouses of their customers, so "G. H. F." did not get the parcel in this case.

Business Changes.

MR. T. WILKES, chemist and druggist, has bought the branch business of Messrs. Peacock & Co., at Cotham, Bristol.

MR. C. H. TALBOT, 24 Wormgate, Boston, has leased new premises in West Street as an extension of his herbalist business.

MR. JOSEPH ROBINSON, late of 328 Alfreton Road, Nottingham, is opening a business at 105 Ilkeston Road, Nottingham.

MR. H. W. G. MORRIS, chemist and druggist, Charlbury, Oxon, is shortly opening a branch pharmacy in High Street, Chipping Norton.

MR. E. J. GREATREX, chemist and druggist, has acquired the business at 164 High Road, Leyton, formerly carried on as a branch by Mr. T. H. Seed.

MR. H. BROOK CLEGG, chemist and druggist, lately with Mr. G. H. Boutall, Ludgate Hill, E.C., has acquired the business of the late Dr. Whiting in Ebury Street, S.W.

MR. T. W. SIMCOCK, druggists' sundriesman, Leeds, has removed from 1 Guildford Street to 2 Cross Fontaine Street, the Corporation having acquired his former warehouses.

Mr. J. F. HARRINGTON, chemist and druggist, 45 High Street, Kensington, W., has taken over the business at 63 High Street, Kensington, lately carried on by Mr. C. E. Palmer, pharmaceutical chemist.

Mr. H. PEPPERDINE, chemist and druggist, late of 90 Chiswell Street, E.C., has acquired the premises 4 The Parade, High Road, Kilburn, N.W., which he will occupy as soon as the necessary alterations are completed.

Marriages.

AUSTEN—SAMPSON.—On June 19, at Beauchief Abbey, near Sheffield, by the Rev. H. F. Greenwood, M.A., John Austen, pharmaceutical chemist, of Dore and 27 High Street, Sheffield, to Jessie Mabel, only daughter of the late Mr. George Sampson, of Beauchief.

DUNNING—CLOUGH.—On June 20, at St. George's Church, Bloomsbury, James Dunning, chemist and druggist, Ventnor, to Constance, daughter of Mrs. Clough, of Marine Parade, Ventnor.

LOHOAR—MCCONNELL.—At Royal British Hotel, Edinburgh, on June 19, by the Rev. W. C. Duncan, B.D., Ayre, assisted by the Rev. James McGibbon, B.D., Hamilton, James Lohar, chemist and druggist, Hamilton, to Bessie Guthrie, second daughter of the late Mr. John McConnell, merchant, Ayre.

WELLCOME—BARNARDO.—At St. Mark's Church, Surbiton, on June 25, by the Rev. Canon Fleming, assisted by the Ven. Archdeacon Charles Burncy, Henry S. Wellcome to Gwendoline Maude Syrie, daughter, of Mr. Thomas J. Barnardo, F.R.C.S. Ed., and Mrs. Barnardo, of St. Leonards Lodge, Surbiton.

Deaths.

BARKER.—On June 25, at 22 High Street, Mold, Mary, the dearly-beloved wife of Mr. Robert Barker, chemist and druggist. Aged 55.

BOTTERILL.—At 30 Walingate, York, on June 20, Mr. F. W. Botterill, chemist and druggist. Aged 33 years. Mr. Botterill was apprenticed to Mr. R. H. Rheeder, Newcastle, for four years. He then went as assistant to Mr. C. B. Allen, of Kilburn, till he was 21 years of age, when he passed the Minor examination. He next managed Mr. H. Legg's pharmacy in Wilton Road, Pimlico, which he had to relinquish owing to heart-trouble. After a sojourn in Nice, where he seemed to recover his health, he acquired the business of Mr. H. Oates eight years ago, and was very successful in it. Latterly his heart-trouble, with bronchial complications, carried him off. He was hurried at Wilherforce on June 24.

COCKBURN.—On June 17, Mr. George Cockburn, chemist and druggist, Haswell, Co. Durham. On June 12 Mr. Cockburn, while reaching a bottle from a top shelf, upset a large hottle of carbolic acid, and the contents ran over him. He was so badly burned that in spite of medical attendance he died a few days after.

EVANS.—At Tyddyn Marsley, Llanberis, on June 11, Mr. John Robert Evans, chemist and druggist. Aged 42.

LEONARD.—On June 23, at 19 North Earl Street, Dublin, John Leonard, L.R.O.P., L.R.O.S. Edinburgh, L.A.H. Dublin. Dr. Leonard is best known to pharmacists as the founder of Leonard's Medical Halls, which are now carried on by Dr. J. C. McWalter. Of late years Dr. Leonard had been in failing health and had lived in comparative retirement.

PERRESS.—At Portslade, Sussex, on June 5, Mr. John Clements Perress, pharmaceutical chemist. Aged 56.

WYLIE.—At Port Glasgow, on June 7, Mr. Thomas Wylie, chemist and druggist. Aged 69.

Legal Reports.

Trade Law.

Leaky Measures are Unjust.—At Finsbury Petty Sessions last week an inspector said a measure used for the sale of vinegar leaked, and although the defendant said when he used it he stopped the hole with his finger he was fined 10s.

What is a Week's Notice?—A shop-manager was at his master's shop waiting for instructions until 1 o'clock on Monday morning, when he was dismissed. He sued for that week's wages and for a second week in lieu of notice. Mr. Commissioner Kerr allowed for the two weeks, saying that a notice on a Monday morning was not a week's notice (City of London Court, June 19).

Companies and Persons.—The case of the Pharmaceutical Society v. the London and Provincial Supply Association has come in handy in two cases during the past week. At Sandbach a publican was fined 2*l.* and costs for selling beer containing $\frac{1}{10}$ gr. per gallon of arsenious acid. At the same time the North Cheshire Brewery Company (Limited) were charged with mixing mild beer with arsenious acid, to the danger of the public health. Mr. A. W. Evans at the outset raised a legal objection that the company was a corporation, and therefore incapable of being prosecuted under that section. He contended that the word "person" could not mean an artificial person nor a body corporate, and quoted the Pharmaceutical Society v. the London and Provincial Supply Stores. He urged that as the act alleged was an act of commission implying a guilty mind, they must get at the actual offender, whether a managing director, a secretary, or a brewer. The Bench ruled that the case should proceed, but eventually, having regard to the heavy costs, they fined the company 1*l.* only. —Again, in the Court of Appeal on Monday, in the case of *Hirst v. the West Riding Union Banking Company (Limited)* and *Hartley*, which was in reference to damages resulting from confidential advice as to the standing of a customer of the plaintiff supplied indirectly to the latter through another bank, the Court found that the defendant Hartley was liable, but not the company. Lord Justice Stirling, in concurring with his colleagues, said a limited company comes within Section 6 of Lord Tenterden's Act. The word "person" in that section includes a limited company. In "Pharmaceutical Society v. London and Provincial Supply Association," Lord Blackburn, in dealing with the question whether the word "person" in an Act of Parliament includes a corporation, said that whether it does so or not in any particular Act must depend upon the context and the subject-matter. Looking at the question from that point of view, the Legislature had thought that the enactment in Section 6 of Lord Tenterden's Act was proper for the protection of human beings. This section, we may say, provides that "no action shall be brought whereby to charge any person upon or by reason of any representation or assurance made or given concerning or relating to the character, conduct, credit, ability, trade, or dealings of any other person" to the intent that such other person might obtain money or goods upon credit, "unless such representation or assurance he made in writing, signed by the party to be charged therewith." The Master of the Rolls, Lord Justice Vaughan Williams, and Lord Justice Stirling were agreed that the Act applies to limited companies, and as the Bank in this case did not sign the confidential letter it was not liable. The award of 2,267*l.* to the plaintiff was confirmed.

High Court Cases.

AN ACTION DISMISSED.

IN the King's Bench Division (No. 2) of the High Court of Justice in Ireland, on June 21 (before Judges Johnson, Gibson, and Madden), the case of *Leslie & Co., Dublin*, against the *Guardians of Croom Union* was mentioned. The plaintiffs were Messrs. Leslie & Co., wholesale druggists, 36 Bride Street, Dublin, who sued the defendants to recover 46*l.* 14*s.* 4*d.* for medicines supplied to the Croom workhouse and the Adare dispensary. The defendants pleaded that they had paid 21*l.* and were entitled to a reduction of 12*l.* 10*s.*, and the balance they lodged in court. The plaintiffs did not now proceed to trial, and the Court dismissed the action, each side to draw out of court the money lodged by the other.

BEECHAM v. BEECHAM.

MR. JUSTICE BARNES on June 25 heard counsel and witnesses in regard to the petition of Mrs. Josephine Beecham for a judicial separation from her husband, Mr. Joseph Beecham, St. Helens. Mrs. Beecham stated in evidence that she was

married to respondent on April 12, 1873, and there had been ten children, two of whom were over 21 years of age. She knew nothing about the charge of her husband's misconduct except what had been told her, but had been living apart from him for three years. Mr. J. H. Wallace, who said he was a private secretary, deposed to following the respondent from Willesden Junction on two occasions last year. Respondent went to the house of a Mrs. Bennett, in Harlesden, where he stayed from the Saturday to the Monday. A local tradesman stated that Mr. Beecham and Mrs. Bennett were known to him as Mr. and Mrs. Bennett, and he supplied them with goods. After corroborative evidence, his Lordship granted the petition, reserving the question of the custody of the children.

Sale of Food and Drugs Acts.

CAMPHORATED OIL.

At Usk on June 20, Richard Herbert, grocer, was fined 2*l.* including costs, for selling camphorated oil 61 per cent deficient in camphor. It was pleaded in mitigation that the oil had been purchased in 1898, and the wholesalers from whom it was obtained pointed out that at that time it had not been legally declared to be an offence to sell such a mixture as camphorated oil.

CREAM OF TARTAR.

RICHARD PARSONS, grocer, Pinxton, was summoned at Alfreton, on June 20, for having sold cream of tartar which according to the analyst's certificate contained 32 per cent. of cream of tartar, 21 per cent. bisulphate of potash, 15 per cent. phosphate of lime, and 5 per cent. starch. Mr. John White, the Derbyshire county analyst, in his evidence, stated that the impurities formed 68 per cent. of the mixture instead of the $2\frac{1}{2}$ per cent. allowed by the B.P. It was a very clever adulteration, and was much cheaper to the vendor than pure cream of tartar. Defendant stated that the cream of tartar was purchased by his late father six or seven years ago. It was sold by him without the least intention to defraud. He himself was ignorant as to what should be the quality of cream of tartar. The Bench imposed a fine of 1*s.* and 18*s.* 6*d.* costs.

WHAT IS CARBONATE OF SODA?

A CASE which once more raised the question of pharmacopœial v. popular names came before the Ripley Bench of Magistrates (Mr. A. Leslie Wright, Mr. W. B. Bembridge, and Dr. Hooper) on Monday, June 24, when Mr. John B. Hodgson, chemist and druggist, of Ripley, was summoned under Section 6 (1875) by Capt. H. S. Sandys, of Derby, inspector of food and drugs, with unlawfully selling to Joseph Hewitt, to his prejudice, on May 8, 4 oz. of carbonate of soda, which was not of the nature, substance, and quality demanded, in that it consisted of bicarbonate of soda.

Mr. Tinsley Lindley, barrister, of Birmingham, instructed by Messrs. Green & Williams, of Nottingham, on behalf of the Chemists' Defence Association, defended, and there was a large company of chemists and others directly interested in court. Amongst those present were Messrs. J. Russell Bennet and A. Eberlin (Nottingham), W. S. Wain and George Heaton (Ripley), and W. S. Glyn-Jones and A. C. Wootton. The defendant was shown into the dock, but Mr. Lindley directed him to take a seat on the solicitors' bench, which he did.

Capt. Sandys, in his opening statement, remarked that when he received the county analyst's report he thought some mistake must have been made by the defendant, and interviewed him, offering to withdraw the case on payment of costs, an offer which was refused. Section 6 of the Sale of Food and Drugs Act had been broken, and they were thereby prejudiced by asking for carbonate of soda and not getting it.

Joseph Hewitt, the prosecutor's assistant, deposed that he went into defendant's shop and asked for $\frac{1}{4}$ lb. of carbonate of soda, for which he paid 4*d.* Cross-examined by Mr. Lindley, he said it was on his own suggestion that he asked for carbonate of soda, and he expected to get what an ordinary customer asking for carbonate of soda would get. Witness would use carbonate of soda as a photographer did, but did not say he wanted it for that purpose. He, how-

ever, presumed he was to get the drug, and not the photographic article. He admitted that the article he got was what the public would expect to get, but it was not carbonate of soda.

John White, F.I.C., county analyst, said if he entered a shop and asked for carbonate of soda he certainly expected to get it, and not bicarbonate. Cross-examined by Mr. Lindley, he said carbonate was a compound of carbonic acid with a base, and there was no symbol that strictly represented a carbonate. Na_2CO_3 was the chemical formula that represented carbonate of soda, and that was the carbonate asked for. There was also crystallised carbonate of soda, called in the trade washing-soda. He had not seen what Watts's "Dictionary" said as to the constitution of carbonates. Mr. Lindley read the passage in the "Dictionary," which points out that sodium carbonates exist in several hydrated forms, and questioned witness thereon, the purpose of the questions being to show that actually there is chemically no one compound which may strictly be called carbonate to the exclusion of others. Mr. Lindley also showed the witness that Attfield's "Chemistry" referred to carbonates as compounds containing the grouping CO_3 , therefore NaHCO_3 was a carbonate. Witness would only say that the latter was a division of a carbonate. He would use Na_2CO_3 for making effervescing drinks, not bicarbonate. Mr. Lindley then called his attention to Mrs. Beeton's cookery book, where "soda" and "carbonate of soda" are ordered in the same recipe for boiling peas. Witness could not say what was meant by "soda," and presumed that the carbonate meant was Na_2CO_3 . He had heard of bicarbonate of soda being erroneously called carbonate of soda, and he did not think the general purchaser wanting bicarbonate would ask for carbonate. Witness was then handed the London Pharmacopœia, 1824, and asked to say what soda carbonas specified there was, and what were the directions for making it. He protested to the Bench that the book was printed in old Latin, and it was not fair to ask him to translate it on the spur of the moment.

Mr. Lindley: If you can't, I have got gentlemen here who can. Please give it me.

The book was then handed to Mr. Wootton, who wrote out a translation. This was handed to the witness, who accepted the translation, and agreed that in this formula the words "soda carbonas" indicated what was now known officially as bicarbonate of soda. If he went into a shop for carbonate of soda, he expected to get Na_2CO_3 , and not $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$. In reply to Dr. Hooper, witness said he would expect to get the dried sodium carbonate—not the B.P. sodium carbonate—when he asked for carbonate of soda, and did not specify dried.

Re-examined, witness stated that if he heated sodium bicarbonate it would lose 40 per cent., and the remainder would be carbonate of soda.

For the defence, Mr. Lindley contended that the term "carbonate of soda" was not a scientific term, but a popular name, frequently used by purchasers when they wanted bicarbonate. If he or she wanted any other kind of soda, they specified it.

Defendant then deposed that he had been in business two and a half years in Ripley, and was for fourteen or fifteen years assistant elsewhere. On the day named the inspector purchased magnesia, milk of sulphur, and carbonate of soda. He asked for "heavy magnesia, B.P."—meaning according to the formula of the British Pharmacopœia. When he asked for carbonate of soda he did not add "B.P." He supplied him with bicarbonate. When people asked for carbonate of soda they were always served with bicarbonate, and expected to get it. When they wanted any other but bicarbonate they would come for "Quarter-ston' o' soda," and he would give them washing-soda. He only kept those two kinds—bicarbonate and washing soda. In answer to the Bench, defendant said that custom also applied at Manchester and other towns where he had been assistant.

Mr. Eberlin, Secretary of the Nottingham Chemists' Association, stated that he had twenty years' experience. When people asked for carbonate of soda they expected to get bicarbonate. He had never sold the B.P. carbonate when carbonate of soda had been asked for, unless he was told it was for photographic purposes. The chief purpose of carbonate of soda of the B.P. was not as a drug, but as a

chemical. In answer to Captain Sandys, witness produced the labels used by himself, on which was printed a notice drawing the attention of customers to the fact that, although they had asked for carbonate of soda, they had been supplied with bicarbonate. It was undoubtedly a general understanding that, when the public asked for carbonate of soda, they should be supplied with bicarbonate.

Dr. Allen, of Ripley, said he had often ordered the bicarbonate from his wholesale house under the old name, "sodæ carb.," and the bicarbonate was sent, as he expected. He agreed with Sir T. Lauder Brunton that the dried carbonate was a poisonous alkali, and he considered it would be dangerous to sell that article to the public when carbonate was asked for.

The Chairman of the Bench: The Magistrates do not think that it is necessary to hear more evidence.

Mr. Lindley: Although I have a large number of witnesses, I will only ask you to hear one other, who will give you what I think very important evidence as to custom.

Mr. W. S. Glyn-Jones then deposed that he had purchased "carbonate of soda" from twenty-eight chemists' shops in London, asking for it as such, and in every case the bicarbonate was supplied. He agreed that carbonate of soda from the public point of view was bicarbonate, and the latter was always supplied, although it was much more expensive.

The Bench then dismissed the summons by a majority, but would make no order as to costs, although pressed by Mr. Lindley.

ANALYSIS IN COURT.

AN important case, brought by the Commissioners of Inland Revenue against a firm for importing butter containing margarine, is being heard at the Thames Police Court. Mr. Lewin, the Government analyst, gave evidence as to the results of his microscopic analysis of the article, and showed photographs of slides representing butter and margarine fats respectively. The defendants' counsel said a microscopical test was not "analysis." His authority for this was the "Century Dictionary." The Magistrate overruled this objection. Defendants' counsel asked the Magistrate to direct Mr. Lewin to make the microscopic examination in court, but Mr. Darckwerts, for the prosecution, objected, and the Magistrate adjourned the case to consider the point.

THE RESERVE SAMPLE.

AN unusual circumstance arose at the Bow Street Police Court on June 25, in regard to the summons against a milk-seller who had sold milk alleged to be deficient to the extent of 8·6 per cent. of fat. Mr. Marsham ordered her to pay 40s. and 12s. 6d. costs, and she left the court to pay the money. Meanwhile a representative of the firm that supplied the milk asked the Magistrate to send the reserve sample to the Government chemists. The retailer was recalled and asked if she agreed, which she did. The prosecutor thereupon explained that the milk had fermented and burst the bottle. "In that case," said the Magistrate, "I have no alternative but to dismiss the summons," which was accordingly done.

County Court Cases.

COMPLICATED.

AT Worcester County Court on June 19, before Judge Sir Richard Harrington, Bart., an interpleader action was heard, in which Mr. Harry Day, a Worcester accountant, was the plaintiff, and Mr. C. J. R. Williams, of Bromyard, the execution creditor. The facts were that Mr. E. B. Storm, chemist and druggist, Broad Street, Worcester, had assigned all his property to Mr. H. A. Leicester, for the benefit of his creditors. Mr. Leicester then sold the stock to Mrs. Storm (Mr. Storm's wife), and she in turn assigned the stock to Mr. Harry Day, for the benefit of her creditors. Mr. C. J. R. Williams, of Bromyard, who had obtained judgment for 16*l.* against Mr. and Mrs. Storm, issued execution against Mr. Storm only, and seized the stock. Mr. Dobbs, who appeared for Mr. Day, contended that the goods now belonged to his client, and previous to that to Mrs. Storm, therefore the execution and seizure against Mr. Storm were wrongful.

Mr. Cave, on behalf of Mr. Williams, raised the question as to whether the stock in the chemist's shop could legally be the property of anyone but Mr. Storm, as neither Mrs. Storm, Mr. Day, nor Mr. Leicester was a properly qualified chemist. The Pharmacy Act distinctly stated that no one but a qualified chemist could sell drugs containing poison or compound medicines. His Honour pointed out that the Pharmacy Act only insisted on a qualified chemist retailing poisonous drugs. It could not prevent Mrs. Storm or anyone else being the owner of them, or assigning them in bulk to another person. Mr. Storm, however, had, it seemed to him, to have put himself before the public and Mr. Williams as an ordinary solvent man. Therefore he thought he could not help giving judgment for plaintiff, but he would allow no costs.

A CHEMIST'S PAVEMENT-LIGHTS.

AT Brompton County Court on Monday, before Judge Stonor and a jury, Mrs. Jane Sealey, a collar-dresser, brought an action for 50*l.* against Mr. William A. Shephard, pharmaceutical chemist, 155 King Street, Hammersmith, and Greyhound Road, Fulham, in respect of personal injuries, received under the circumstances stated. On February 9 last she was going to make a purchase at the defendant's Fulham shop, and while passing over a glass pavement-grating a portion of the glass gave way, and her leg went down with great force. Owing to her injuries she had been unable to do any work since the accident. Drs. Harry F. Browne and J. Armstrong said the injury was a sprain of the ligaments of the ankle; but for the defence Mr. Edward Cullinan, M.R.C.S., and Mr. A. de Vallerencey, M.R.C.S., testified that they found no trace of injury in March and May—merely dropsical swelling. Mr. Simmons, for the defence, argued that there was no evidence of culpable negligence on the part of the defendant, but the jury found in favour of the plaintiff, assessing the damages at 50*l.* His Honour gave judgment accordingly, and allowed costs. Mr. Simmons asked his Honour to make an order for payment by so much a month, but the Judge said, "*Non possumus*," adding that he had no power to make such an order when the amount was over 20*l.*

Bankruptcies and Failures.

Re WILLIAM FRANCIS HACKNEY, South Street, Earlsfield, Wholesale and Retail Chemist.—The sitting for the adjourned public examination was held on June 20, at the Wandsworth Bankruptcy Court. The Assistant Official Receiver (Mr. J. H. Acheson) said he had received a letter from debtor, in which he said he had obtained a situation, and could not attend the Court. He (the Assistant Official Receiver) replied, pointing out the order was made by the Registrar, and that if he desired it varied he had better communicate with the Registrar. Mr. Registrar Willoughby said he had heard nothing from the debtor, and Mr. Acheson handed up the bankrupt's letter for perusal, saying he would ask for one more adjournment; but, if bankrupt failed to appear then, he must make a definite application. The Registrar said the matter had been before the Court several times, but there did not appear to have been any examination. Mr. Acheson explained the bankrupt was very ill, and, now he had recovered, he had got a situation out of the district.

Re HANNAH BROAD, lately trading as a Chemist at 1 Hornsey Rise Gardens.

The following are creditors:—

	£	s.	d.
Barron, Harveys & Co., London ...	26	0	1
Idris & Co. (Limited), London ...	87	1	2
London, W. H., London ...	60	1	1
Pugh, S. O., London ...	11	19	7
Assets ...	45	0	0
Fully-secured creditor ...	300	0	0
Liabilities ...	214	7	9

"LABOUCHERE CLEAN BOWLED."—We have to acknowledge a cutting from *Topical Times* generously underlined in blue and red ink, and sent to us anonymously. It is as pungent as capsicum, and the writer seems to be seriously in need of the Calmette treatment.

Gazette.

Partnerships Dissolved.

Bertolacci, J. H., and Lansdown, G. H., under the style of Bertolacci and Lansdown, Woking, medical practitioners, surgeons, and apothecaries.

Hughes, R., and Searson, J., under the style of Hughes & Searson, Brighton, medical practitioners.

Telford, E., Bates, T., and Stamper, R., under the style of the West Stanley Mineral-water Company, Stanley, Durham, mineral-water manufacturers.

The Bankruptcy Acts 1883 and 1890.

ADJUDICATIONS.

Hall, Edwin James, and Hall, Hugh John, trading as E. J. Hall & Co., East Ferry Road, Millwall, E., and Leaden-hall Street, E.C., oil merchants.

Whelpton, George Bates, Malton, Yorkshire, surgeon's bookkeeper and dispenser.

ADJUDICATION ANNULLED.

Ross, James, Liverpool, medical practitioner.

Deeds of Arrangement.

Cardwell, George Matthew, 7 Gladstone Terrace, Morley late 21 Broad Street, George and Crown Yard, and 15 Bradford Road, all Wakefield, late patent-medicine vendor and oil-and colour dealer, now chemist's assistant. Trustee, Thomas Harrison, Queen Street, Wakefield, accountant. Dated June 19; filed June 24. Secured creditors, 231*l.* 15*s.* 3*d.*; liabilities unsecured, 277*l.* 14*s.* 4*d.*; estimated net assets, 132*l.* 9*s.* 9*d.* Amongst the creditors are:—

	£	s.	d.
Barron, Harveys & Co., London ...	...	22	0 0
Blundell, Spence & Co., Hull ...	...	18	0 0
Fearnside, H., Horbury ...	...	10	0 0
Horniman, W. H. & F. J. & Co. (Limited), London ...	...	10	0 0
Monteith & Co., Leeds ...	...	11	0 0
Townend, G., Leeds... ..	...	34	0 0
Tudor, S., & Co. (Limited), Hull ...	...	11	0 0

Hughes, Roger, High Street, Rhuddlan, near Rhyl, county Flint, pharmaceutical chemist and grocer. Trustee, Frederick Wallis, Town Hall Buildings, Rhyl, auctioneer. Dated June 14; filed June 19. Liabilities unsecured, 906*l.* 15*s.* 6*d.* Estimated net assets, 165*l.* The following are scheduled as creditors:—

	£	s.	d.
Chaloner & Co., Liverpool ...	...	16	0 0
Evans & Co., Holywell ...	...	299	0 0
Evans, Sons & Co., Liverpool ...	...	54	0 0
Hawthorn, S., Burslem ...	...	20	0 0
Jones, D., & Co., Liverpool ...	...	199	0 0
Jones, Mrs. Mary, Rhuddlan ...	...	141	0 0
Bankers' claims ...	...	46	0 0

New Companies & Company News.

WESTERN INVESTMENT AND TRUST CORPORATION (LIMITED).—Capital 1,000*l.*, in 1*l.* shares. Objects: This company is, amongst other things, to carry on in England or elsewhere the business of chemists.

LIVERPOOL SUPER-AERATION (LIMITED).—Capital 60,000*l.*, in 1*l.* shares. Objects: As other companies of a similar name previously registered, and to acquire rights from "Super-aeration (Limited)" within a radius of twenty miles of the Liverpool Town Hall (with the exception of places in the county of Flint). Registered office, 6 Water Street, Liverpool.

THOMAS GILLESPIE (LIMITED).—Registered in Dublin. Capital 2,000*l.*, in 1*l.* shares. Objects: To carry on the business of general warehousemen, wholesale and retail grocers, chemists, druggists, flour-factors, confectioners, provision-merchants, &c. The first directors are T. Gillespie and J. Gillespie. Qualification, 5 shares. Remuneration as fixed by the company.

SUPERAERATOR FOREIGN SYNDICATE (LIMITED).—Capital 5,500*l.*, in 1*l.* shares. Objects: To adopt an agreement with W. Pirrie, and to carry on the business of manufacturers of and dealers in

machines and appliances for storing aerated liquids in bulk and delivering them in super-aerated form from appliances commonly known as "soda fountains." No initial public issue. The first directors are W. Pirrie and E. Coward.

RICHARD DICKESON & Co. (LIMITED).—Capital 225,000*l.*, in 5*l.* shares (25,000 preference). Objects: To acquire the business carried on (elsewhere than in South Africa) as "Richard Dickeson & Co.," and to carry on, amongst other businesses, that of grocers, mineral-water manufacturers, chemical and drug merchants, dealers in perfumery and soap, &c. The first directors are W. O. Kennett, A. W. Prince, and F. D. Bolton. Qualification, 1,000*l.* Remuneration of W. O. Kennett 855*l.*, of A. W. Prince 750*l.*, and of F. D. Bolton 250*l.* per annum. Registered office, Finsbury House, Blomfield Street, E.C.

ANDERSON'S DRUG COMPANY (LIMITED).—Capital 1,000*l.*, in 1*l.* shares. Objects: To acquire and carry on the business of a dispensing chemist, patent-medicine vendor, medical herbalist, and drug-merchant now carried on by W. Anderson at 37 High Street, Redcar, Yorks, to carry on the same and any similar businesses, and to employ qualified persons to act on the company's behalf as pharmaceutical and analytical chemists, dentists, opticians, &c. The first subscribers are:—W. Anderson, 17 Arthur Street, Redcar, drug-seller; Mrs. H. E. Anderson, 17 Arthur Street, Redcar; J. Hunter, Grove Hill Road, Middlesbrough, surveyor and architect; Miss L. Anderson, 86 Palmerston Terrace, Middlesbrough; Miss E. H. Watson, 50 Granville Road, Middlesbrough; Mrs. P. Anderson, 86 Palmerston Terrace, Middlesbrough; and A. Watson, 50 Granville Road, Middlesbrough, engineer. No initial public issue. William Anderson is managing director. Registered office, 37 High Street, Redcar, Yorkshire.

STEPHEN SMITH & Co. (LIMITED).—The report and accounts for the year ended March 31 show a gross profit of 16,634*l.*, an increase of 924*l.* Of this it is proposed to put the sum of 500*l.* to reserve, and, after paying a dividend on the preference shares and on the ordinary shares (working out at 2½ per cent. on the ordinary shares, all of which are held by the vendor) for the year, 1,198*l.* remains to be carried forward. The directors report increasing sales in Keystone Burgundy, and state that there has only been a loss of 64*l.* in bad debts amongst 5,000 customers.

A. S. WATSON & Co. (LIMITED).—The sixteenth annual meeting of the shareholders was held on May 22 at Hong-Kong, Mr. H. Humphreys presiding. In moving the adoption of the report and balance-sheet (see *C. & D.*, June 15, page 965), he stated that the business continued to show a steady expansion. The total stock-in-trade, he said, showed a considerable increase over last year's total. Nearly the whole of this increase had taken place at their European branches, and also at Manila. A number of questions dealing with the accounts were asked by Mr. Reece, and replied to in detail by the Chairman, after which the report and accounts, as presented, were adopted, Mr. Reece being the only dissident. The Hon. C. P. Chater, Messrs. E. Osborne, C. Ewens, and H. P. White were appointed as a Consulting Committee.

A. J. WHITE (LIMITED).—The fourth annual general meeting of shareholders was held in the Memorial Hall, Farrington Street, E.C., on June 24. The Hon. Timothy L. Woodruff, Chairman of the Company, who presided, moved the adoption of the report and accounts without any preliminaries, and Mr. Leonard Favell, J.P., seconded. Mr. Robertson, a shareholder, thought something should be said about the accounts. It was a matter of congratulation, he said, that there was such a large surplus in the gross profits. It was an additional credit to the management that they had been able to pay off 11,500*l.* out of revenue and still have enough money to declare a dividend of 5 per cent. on the ordinary shares. The expenses of directors' and auditors' fees in this year were 1,157*l.*, which in the year before were 1,500*l.* Mr. Diamond asked that the remuneration given to the managing director should be separately stated, and whether the investments and stock were stated in the accounts as bedrock prices. Several shareholders rose to call Mr. Diamond to order, but the Chairman ruled that the questions were proper ones to be put, and said the fees referred to had been slumped specially with the view of no one knowing what they were—(laughter)—but the compensation paid to the managing director was not nearly so much as that paid to the late managing director, Mr. Packer. The present official had co-operated with the

board in cutting down expenses and effecting economies, and the saving which had been referred to by a previous speaker had been mainly accomplished by internal economies. For the first time in the balance-sheet the investments had appeared at the cost-price, and not one shilling above their present value. Mr. Diamond thought that 32,000% was a large amount to have in hand, and the Chairman replied that this sum was necessary as working capital. They had just purchased 20,000% in British Consols—(applause)—and hoped they would reach 105 before they fell to 85. (Laughter.) By the investment made in the Birmingham Corporation Stock they had, however, lost 250%. Answering a further question, the Chairman said that the trade had improved all round—in no part of the world had there been any falling off. The earnings were sufficient to pay 7 per cent. instead of 5 per cent., and the former amount would have been the dividend but for the decision to pay off the 11,500% of the advertising account. They had increased their sphere of advertising, and still they had effected economies. The motion was carried, the Chairman and Mr. Lyman Brown were re-elected directors, and the auditors were re-appointed.

MYNAME SOAP COMPANY (LIMITED).—The statutory meetings of the creditors and shareholders of this company were held at the Carey Street Offices of the Board of Trade on June 26. Mr. Cully, Assistant-Receiver, reported that the company's affairs would require a very searching investigation. It was formed on September 3, 1900, with a capital of 6,000%, divided into 4,000 10-per-cent. accumulative preference and 2,000 ordinary shares, to carry on a business started the previous May by Mr. J. E. Lyndall, an undischarged bankrupt, in dealing with soap perforated with different Christian names. A prospectus was prepared and printed, but there was no public issue, and the cash-subscription of 1,200% was obtained from the directors and two managers subsequently appointed. Mr. Lyndall had a contract with Messrs. Edward Cook & Co. (Limited) to supply him exclusively with the perforated soap-tablets. On November 1, 1900, he assigned the business to Mr. C. A. Barnard, and eight days later Mr. Barnard entered into an agreement with the company for the sale of the business, &c., for 4,000%, payable as to 2,000% in preference and 2,000% in ordinary shares of the company, but only a portion of the vendor's shares had been issued. There were accommodation bill and other transactions calling for explanation, and the books of the company were in such a hopeless muddle that the accountants had not yet been able to prepare the statement of affairs. The failure of the company was ascribed to want of capital. The liquidation was left in the hands of the Official Receiver.

Westminster Wisdom.

MOND GAS BILL.

This Bill was read a second time in the House of Lords on June 20, and reached the Committee-stage.

DUTY ON MOLASSES AND GLUCOSE.

In the House of Commons on June 20, the Chancellor of the Exchequer, in Committee on the Finance Bill, proposed to amend Clause 2 by leaving out lines 16 to 20, and inserting the following:—

	£	s.	d.
Molasses (except when cleared for use by a licensed distiller in the manufacture of spirits) and all sugar and extracts from sugar which cannot be tested by the polariscope—			
If containing 70 per cent. or more of sweetening matter cwt.	0	2	9
If containing less than 70 per cent. and more than 50 per cent. of sweetening matter... cwt.	0	2	0
If containing not more than 50 per cent. of sweetening matter cwt.	0	1	0
Glucose:			
Solid cwt.	0	2	9
Liquid cwt.	0	2	0

The Committee divided, and the amendment was passed by 215 to 131 votes.

ARMY MEDICAL REFORM.

It is stated that within the course of a few days a committee will be appointed by Mr. Brodrick to inquire into the whole question of organisation of the Royal Army Medical Service. The committee will be of a working size, and thoroughly representative.

GROCERS' LICENCES (SCOTLAND)

In the House of Commons on June 18 a Bill to abolish dealers' or grocers' licences in Scotland was presented and read a first time; to be read a second time on July 16. The Bill is backed by Sir John Leng, Mr. Crombie, Mr. Dalziel, Mr. Colville, Mr. Pirie, and Mr. Hunter Craig.

ALKALI-WORKS REGULATION BILL.

Mr. Walter Long, M.P., President of the Local Government Board, received on June 20 a deputation of manufacturers with reference to this Bill. Sir John Brunner, M.P., introduced the deputation, which included Dr. Mond, Mr. John Brock, Mr. Eustace Carey, Sir David Gamble, and others. Mr. Long was accompanied by Mr. S. B. Provis, C.B., the Permanent Secretary; Mr. A. D. Adrian, C.B., the legal adviser; and Mr. R. F. Carpenter, the Chief Inspector of Alkali-works. Sir John Brunner explained that the Bill had come before the manufacturers as a slight jar, for the proposals had been sprung upon them without any conference with the trade. Sir David Gamble contended that the Bill introduced a new principle in legislation, as it proposed to test the gases after leaving the manufactories, instead of testing them after they had been mixed with smoke and other gases. Instead of taking measures to protect the public they were going to control the gases passing from one part of the works to another. Mr. John Brock spoke of the magnitude of the trade, the production of sulphuric acid being 1,000,000 tons a year. The Bill would render the working exceedingly onerous and difficult, and it would be impossible to comply with the requirements. Mr. Eustace Carey said the Bill would render it impossible to work the Hargreave process. Dr. Mond emphasised the effect the Bill would have on the development of the sulphuric-acid industry. New processes were being introduced, and the enactment of the Bill would probably hamper or prevent the development of the trade in this country. Mr. Long, in reply, said he was sure there was no intentional neglect on the part of the officers of the Department who were charged with the carrying through of the measure. The last thing that his Department desired was in any way to interfere with a trade the importance of which was fully recognised. The difficulty that he found in appreciating the point of the remarks that had been addressed to him was that he had been informed that the process, which it was proposed by the present Bill to legalise for the future, was the process which, as a matter of fact, had been in practice for a very considerable time, but an appeal had been made to the law officers of the Crown as to whether that procedure was legal or not. They had advised that it was not legal, and it was to make that legal which had been done under misapprehension that the Bill had been introduced into Parliament. He was informed that the difficulty which had to be dealt with was to test the gases before they passed into a chimney or flue where they became confused with other gases. The Chief Inspector (Mr. Carpenter) would be glad to see manufacturers, and would carefully consider any special points which they might report to him. He could assure them that he did not wish to force any restrictive legislation upon the trade, but he understood that a good many people connected with the industry had accepted and expressed their approval of the new regulations.

Sir John Brunner remarked that he did not know of any.

Mr. Long finally assured the deputation that no legislative enactment would be passed without the most careful consideration.

Sir John Brunner thanked the President, and the deputation withdrew.

Sir John Brunner has given notice that when the second reading of this Bill comes on he will move that it be read a second time upon that day three months.

THE consumption of opium in the French colonies of Cochinchina and Cambodia exceeds 60 tons yearly. It is mostly Yunnan or Chinese opium.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

Hidden Mysteries.

SIR,—I am much obliged for the prominence which you have afforded to the subject of the label I use when selling what are better described as "Hidden Mysteries" than as "Proprietarys." The adoption of such a label has met with the perfect approval of every chemist I have spoken to, and assurances reach me from all sides voluntarily agreeing to adopt it. Under these circumstances it is quite unnecessary for me to further demonstrate its value or to enter into a discussion on its merits, which are so palpable to those conversant with pharmacy in Ireland.

I venture to point out some errors you have fallen into in your editorial article of last week, due principally, I think, to lack of local knowledge. The patent-medicine stamp is not required in Ireland, so the "Revenue" is out of the question. The label bearing the words

British Government stamp affixed to cork
inside guaranteed to be genuine

mentioned by the *Medical Press* is one printed by the proprietor of the "patent," and has nothing to do with what is on the Government stamp.

I cannot follow your logic when you describe an "argument which has done justice for generations" as "absurd." You hold that disparagement of other people's goods may occur in "an endeavour to free oneself from the responsibility regarding the composition or action of a proprietary medicine," and yet you state, "It is ridiculous for the *Medical Press* to say that the pharmacist can be held responsible for a poisonous proprietary article." Fellows's syrup is not one of the "hidden mysteries," because the composition is published, and as regards registering the sale thereof, that is unnecessary in Ireland at least, as "preparations of strychnine" come under Part 2 of Schedule A, Sale of Poisons (Ireland) Act, 33 & 34 Vict. The justice and necessity of my label recently received much proof. On asking the representative of one of the largest "patents" if his firm (the manufacturers) would indemnify chemists against legal liability incurred through selling their pills, his immediate answer was, "Certainly not." Again, on handing him one of my labels, he said "he would much rather it was not used, but there was nothing in it that his principals could legally stop." This alone should show chemists their duty to themselves, and lead them to estimate their position as sellers, if brought before a jury and compelled to acknowledge they did not know the nature or composition of what they offered and sold to the public.

I may mention that the label you quote as issued in 1884 was outside my knowledge until the past few days.

Yours faithfully,

J. I. BERNARD

(Vice-President Pharmaceutical Society of Ireland).
26 Clare Street, Dublin.

N.B. Executive.

SIR,—The election of the N.B. Executive has come and gone for another year, and I notice from a report in a local newspaper that all the retiring members who sought reelection have been returned. This means, I suppose, that the electors are quite satisfied with the way these members have performed their duties. I wonder if they are aware that more members of the Executive than one leave their businesses under unqualified management while they attend

the Executive meetings in Edinburgh? If they are aware, I would ask if they think it consistent of those men to do so? Do they put up a notice in their shops, as recommended by the Glasgow doctors, "No scheduled poisons sold here to-day" (it takes some of them a day to get to Edinburgh and back)? Are they not committing the very offence the Society considers so very heinous on the part of doctors? I am neither a doctor nor an assistant in a doctor's shop, but I like fair play all round. To me it seems preposterous that any man could agree to act on the Executive (a committee of the Society) who finds himself in this position. Such doings are bound to be used against us one day, and I am astonished that some smart lawyer has not before now pounced on this weak spot, and used it with telling effect while defending the great unqualified.

Yours,

FAIRPLAY. (192/64.)

Dealing in Poisons.

SIR,—I note that "Xrayser" remarks on my suggestions regarding chemists giving personal attention to dispensing and dealing in poisons. He may be right in thinking, as he evidently does, that my suggestions might be adopted without advertising or placarding them, but I am of opinion that in the future it will be as necessary for a chemist who does not keep a qualified assistant to give personal attention to the more responsible work connected with his calling as it is for a doctor or a dentist to give, and I see no reason why a chemist should not adopt the easiest method of advertising the fact that he recognises this. Of course, I am speaking on this point for chemists who do not keep qualified assistants, and as apprentices cannot be got at all under the new regulations, it is not difficult to see that the salaries demanded by qualified men in the near future will be such as to leave few men, indeed, carrying on business who are not interested in these suggestions. There is nothing in all this in any way prejudicial to qualified men in need of employment. With them I have always had sincerest sympathy. I have never even gone the length of calling them "traitors" for serving in stores, although I deplore the fact that they do so. In this they are not only rendering it impossible for legitimate chemists to give them employment, but they are closing all doors of hope for anything like independent positions in their own cases. The prospect of being for ever enslaved by tailors and shoemakers, and people of that stamp, cannot be a pleasant one for men who have worked so hard to qualify themselves for the duties of pharmacy, and in this prospect they are, perhaps, sufficiently punished for their ready self-enslavement. The whole aim of my suggestions is to bring the 90 per cent. of chemists who are carrying on business in this country without the aid of qualified men into line with the new spirit in which the Pharmacy Act must and will be administered. I do not say that all or many of these chemists are out of line, but there must not in future be any. The salvation of pharmacy, to a large extent, lies in the strict administration of the Pharmacy Act as it is at present understood, whether in the case of friend or foe, and in constant endeavours to get the Act so improved as to exclude the unqualified element more and more. Meanwhile, the Glasgow doctors appear to have been reading the *C. & D.* more to their enlightenment than their own journals. At all events, the fact that they have adopted the line I indicated for chemists looks like something more than a coincidence. In this case, however, sauce for the goose is certainly not sauce for the gander. The adoption of this system in the case of doctors' shops can only lead to one of two results. Either dealing in poisons must cease in these places altogether, or else there must be constant contraventions of the Pharmacy Act. A chemist may very well leave his place for a dinner hour, and perhaps half an hour for tea, and take the keys of his poisons' cupboard with him; but I do not see how a doctor who is perhaps only present two hours a day can do this. I am afraid Professor Glaister must invent some other system, and try again. I view the committee appointed to inquire into the state of the poisons' schedules with as much suspicion as "Xrayser" appears to. We all know Camlachie's views already, and most of the other members know little about agricultural trading in drugs, and probably care less.

Dumfries, June 24.

JAMES REID.

What is a Plum?

[C. & D., June 22, page 984.]

Our statesmen in Parliament, learned and wise,
 In quibbles and cackle indulge;
 There is nothing on earth they can not criticise—
 Their brain-pans with knowledge out-bulge.
 Their power of nebulous jawing e'en strikes
 Politico-pharmacists dumb;
 And now they're discussing (and breeding dislikes)
 The question of "What is a plum?"

In pharmacy plums are not plentiful, but
 We think we could point to a few.
 There are Some whom grim poverty never has cut—
 Who but *ask* and their servitors *do*.
 They've been blessed with good ancestors who when they died
 Have willed them a passable sum
 Of hard-earned gold, or perhaps a world-wide
 Infant's food or magnesia "plum."

Some fathers mayhap goodly wisdom have taught
 That has helped to steer Pharmacy's ship,
 The obsequious sons have inherited naught
 But the salary; lacking the grip
 Of Pharmacy's interests and blinding themselves
 To the changes so certain to come,
 Progression with red-tape they tie to the shelves,
 And slothfully munch at their "plum."

Should you chance to be dux in a Bloomsbury school
 And to keep quite *au fait* with the Chiefs,
 You needn't have brains: plenty cheek as a rule,
 And acceptance of well-worn beliefs,
 Are more than sufficient success to ensure,
 And you always can pick up a crumb;
 For the wheels may be turned, and your friends may procure
 A helpful "examiner plum."

ONE WHO IS OUT OF IT. (190/63.)

Assistants' Troubles Settled.

SIR,—If "Xrayer" will be good enough to attend the annual meeting of the Chemists' Assistants' Union at the Horseshoe Hotel next Wednesday evening at 9 o'clock, he will probably hear a good deal about "assistants' troubles." He evidently has a lot to learn yet. I can assure him that the indoor system is doomed, and that men are sticking out for a radical change that will enable them to enjoy the same freedom as workers in other businesses possess, by living away from the premises; and I do not wonder at it, if their experience is anything like that of

Yours faithfully,
 C. E. PICKERING.

The Apprenticeship-question.

SIR,—As you were good enough to print part of the circular issued by me in connection with the election, will you do me the favour of allowing me to thank those members who responded to my request in sufficient numbers to secure my return? I am not sure that the result shows an overwhelming desire on the part of Scottish pharmacists that something should be done to try and get over the apprentice difficulty, but, having been elected on the pledge that I will make the attempt, I shall cheerfully go forward with it, especially as, both before and since the election, I have received quite a number of letters—some from entire strangers—cordially approving of the proposal to open up the question in some form or other.

I am, &c.,

23 Doune Terrace, Glasgow, June 24. T. MABEN.

SIR,—Before Mr. Glyn-Jones obtained a seat on the Council of the Pharmaceutical Society I raised my voice on the apprenticeship-question. Mr. Glyn-Jones promised to take up that question. I have waited—waited patiently—but nothing has yet been done. So once again I appeal to the trade to bestir itself on this most vital problem, and compel the Council to wake up from its long sleep. The future of the trade rests with its members. If the "stores" were unable to obtain qualified assistants they would have to close their doors. Prevent them getting these assistants, and you ruin them. But can this be done, and, if so, how?

It can be done by placing our present chaotic apprenticeship-system upon a proper basis. The stores do not draw their supply of managers from the pharmacy, but from the surgery and the store. Under present conditions, to enter for the "Minor" a man has simply to produce a statement that he has been engaged for three years in the dispensing of prescriptions—as if dispensing were the sole duty of a chemist—and, for all the Council care, the dispensing may have been carried out in his own backyard, and consist in mixing an occasional dose of brimstone and treacle for his grandmother. Did anyone ever hear of such an absurd and unjust system? What proofs, moreover, have the Council that half these precious certificates are not forgeries? and, even if they are not, is it just to the chemist—is it fair to the public—that the doctor should be able to give his stable-boy and bottle-washer a certificate to enable him to enter the ranks of chemists and druggists with the help of a push from a cramming-school and a bit of good luck in his examination? I am not telling a fairy-tale. I have personally known instances of men who have never spent a day in a pharmacy in their lives becoming chemists and druggists. Naturally, they cannot obtain situations in pharmacies, and so they become "store-managers." I have to compete with the "stores," which flourish owing to the lethargy of the Council. I cannot now obtain a premium from apprentices because my opponents, "the largest chemists in the world," take them for nothing. I do not mean errand-boys. A branch of a great drug-company near my shop keeps errand-boys, but they have two apprentices as well. The doctors in this district, without a single exception, do all their own dispensing and supply their patients with syringes, trusses, bandages, invalid-foods—in short, with everything—and, should they meet a consultant, they dispense his prescription. Then, as though to add insult to injury, they supply the "stores" with a flood of "managers" and unqualified assistants with the worst training in the world for a chemist—that of the surgery. Is this fair play? It is only proper from the public point of view that apprentices should be registered, and apprenticeships properly served with a fully qualified chemist in business for himself. No Government in the world could refuse so reasonable a request. Yet the Pharmaceutical Society will not move. To all entreaties they return the answer that some day they hope to have a curriculum, and thus for a distant chimera they sacrifice an immediate prospect of a great reform. If the present members of the Council will not move in this vitally important matter, they must give way to men who will. But, first of all, the trade must recognise this canker which is destroying it, and demand that the Council should act their part of surgeon, and remove it.

Faithfully yours,
 FYTON. (191/58.)

The "Addition" Surgeon used by Dentists.

SIR,—Your reply to "A Subscriber" on page 970 of you June 15 issue is, I venture to think, both incorrect and misleading in every particular. No proceedings have yet been instituted against registered dentists for simply using the title of R.D.S.Eng.—but action has been taken when these letters in conjunction with others have been widely advertised in newspapers programmes, pamphlets, &c.—it being mainly the advertising that was objected to. I do not know what the custom may be in Scotland, but I was in Dublin the other week and noticed the letters "R.D.S.I." on a dentist's name-plate, said dentist doubtless arguing that as he was a resident of Ireland, and the Dental Act under which he was registered applying equally to Ireland as to England, he was quite at liberty to use R.D.S.I. I also disagree with your remarks as to the likelihood of registered dentists being brought into conflict with the General Medical Council for using the "addition" surgeon before or after the *qualifying* "dentist" or "dental," and that the use of the word surgeon "by any person not licensed by a College of Surgeons" is illegal. The Dental Act of 1878 distinctly provides for this. It says that unless a person is registered under the Act he may not take the title of dentist, or any title designation, addition or description. The word "addition" here, cannot have too much stress placed upon it, for it shows that the framers of the Act had taken this point into consideration. Again, a man may take

the L.D.S. of our four licensing bodies, he may even proceed to Birmingham, and obtain the advanced degrees of B.D.S. and M.D.S., but all this is futile unless he is registered. It is the registration that denotes legal qualification, and in the law a person registered as "in practice before July 22, 1878," is quite as much a surgeon-dentist or a dental-surgeon as his L.D.S. *confrère*. Nowadays the Society of Apothecaries' Licentiatehip is a double qualification, and a L.S.A. may call himself a physician and practise as such with the same legal rights as his fellow M.D. Lond. and F.R.C.P. Dentists have used the appellation "surgeon" too long to be interfered with by the General Medical or any other Council, and so long as they are registered they are quite in order in using the addition "Surgeon." I have most of the dental works enumerated by Crowley in Section IV. of his 1885 edition of "Dental Bibliography," also many which have escaped his notice. One of the earliest of my dental works is by Bartholomew (afterwards the Chevalier) Ruspini. It was issued in 1768, and is entitled "A Treatise on the Teeth" by Barth. Ruspini, Surgeon Dentist.—Many of the volumes in my library were issued years before the Apothecaries Act of 1815, and scores of their authors describe themselves as "Surgeon Dentists." Ruspini's 1768 work, however, is the oldest I have with the "description" surgeon-dentist and this volume proves that for more than 130 years the title has been used unquestioned, so how the General Medical Council could combat the rights of qualified men would be difficult to understand! In fact, it could not be done without "An Act to repeal an Act," &c. Faithfully yours,
Bradford, June 25. CHAS. F. FORSHAW, LL.D., D.D.S.

[Mr. Forshaw is wrong in some of his statements, and to these we refer below. There is no need for us to dispute his opinions, but we gladly give them publicity.]

The Royal College of Surgeons of England objects to the use of the addition R.D.S. Eng. by persons not holding its dental diploma. A case of the kind was considered by the General Medical Council at the recent Session, and is still *sub judice* (*C. & D.*, June 15, page 951). The use of the same addition was one of the causes of offence for which a dentist's name was removed from the register last year. We have on more than one occasion reported proceedings of the R.C.S. Eng. at which the mere use of the addition, apart from advertising, was objected to. The General Medical Council shares the R.C.S. view of the matter. "Addition" in the Dentists Act is interpreted as referring to such letters as L.D.S., "Surgeon" is a "designation" or "description." An L.S.A. is not entitled to call himself "physician and surgeon." It was held by the Queen's Bench in the case of *Hunter v. Clure* (*C. & D.*, January 28, 1899, page 185) "that a licentiate of the Society of Apothecaries was not entitled to call himself 'physician' although the directions issued by the Society might lead him to think so." The same would, in all likelihood, apply to the use of "surgeon" by an L.S.A. should that be raised. In the light of this decision our advice is that any person who is not licensed by a British College of Surgeons (dental, medical, or veterinary) should not use the word "surgeon" as a description of his occupation.—EDITOR.]

[We have in type several columns of replies to correspondents, which we have not room for this week.]

College Notes.

STUDENTS AT THE EXHIBITION.—On June 14 the students of the Glasgow School of Pharmacy, accompanied by the Principal (Mr. John Lothian) and assistants, visited the International Exhibition at Kelvingrove.

MANCHESTER COLLEGE OF PHARMACY.—Mr. H. H. Graves, of Alford, has been awarded the prize of books given at this college for the best theoretical work, and Mr. Wilfred Hill, of Ashton-in-Makerfield, secured the medal which is given by an old student for the best work in analytical chemistry.

SOUTH LONDON SCHOOL OF PHARMACY.—Dr. John Muter informs us that, having decided to retire from active financial interest in this school, he has made a present of the goodwill and plant to his staff, and they have entered into partnership to continue the business. The change will take effect on July 1, the members of the new firm being Mr. Frank Armstrong, chemist and druggist, Mr. A. H. Mitchell Muter, F.I.C., F.C.S., and Mr. W. F. Mawer, pharmaceutical chemist, who will trade as the "South London School of Pharmacy."

NORTHERN COLLEGE OF PHARMACY.—The day students of this college travelled on June 19 from Manchester to Ashley on a botanical excursion. Two parties were formed, under the leader-

ship of Mr. G. Clayton and Mr. F. Lawsou, the principals respectively, and, following the course of the river Bollin to Castle Mills, a most profitable time was spent. Numerous botanical specimens were gathered, and, working round to Ashley, Birken Hall was reached, where a substantial tea, provided by the principals, was enjoyed. The remainder of the evening was devoted to cricket and music.

AT KEW.—On June 12, Mr. G. S. V. Wills took the students of the Westminster College for a botanical excursion to Kew Gardens. The route was *via* "Twopenny Tube" to Shepherd's Bush, and thence by electric tram to Kew. After about three hours spent in the Gardens, the company adjourned to the Rose and Crown Hotel, where a substantial tea was provided by the Principal. A number of old pupils joined the party. Students will be sorry to learn that the authorities have done away with what was known as the "Students' Gardens," where specimens could be gathered for home study.

WEST OF SCOTLAND COLLEGE OF PHARMACY.—One of the latest innovations at this college has been the institution of evening botanical rambles in the suburbs of Glasgow, where wild flowers are to be found abundantly. The first ramble, which took place a fortnight ago, was to the fields in the extreme west of the city, where a large number of specimens were collected. One of the students, with a taste for geology, had a rare haul of carboniferous fossils, including a number of well-preserved calamites. The second ramble, on June 19, was to the Cathcart district. This was better attended than the first, and a greater number of specimens were collected, under Mr. T. S. Barrie's supervision. Not content with studying them on the spot, specimens were taken for further consideration regarding the percentage of water in them (85 per cent. in *tussilago*-leaves, according to one observer), the study of tubercles on leguminous roots, and so forth.

NORTH OF ENGLAND SCHOOL OF CHEMISTRY AND PHARMACY.—The students held their annual excursion to Morpeth on June 22, accompanied by their principal, Mr. F. R. Duddridge, F.C.S. Leaving Newcastle at 9.30 in the morning by train, the party on arrival immediately proceeded to visit Mr. E. Hopper's fine gardeaus, where a splendid collection of orchids and other choice exotics was inspected. From there they proceeded to Mr. Matheson's nurseries, where a number of medicinal plants were seen. After dinner the party meandered through the shady woods to Bothal, and were conducted by the Duke of Portland's gardener through the Bothalhaugh grounds, which are unrivalled in the North of England for their variety of forest trees. Permission to visit these grounds was obtained through the kindness of Mr. F. E. Schofield, chemist and druggist, Morpeth. A large number of botanical specimens were collected and described during the day. After leaving Bothal the party returned to tea at Morpeth, the proceedings being terminated by a musical evening.

SHEFFIELD COLLEGE OF PHARMACY.—On June 20 the students of this college, accompanied by the principal (Mr. J. W. J. Turner), visited the Blue John Mine at Castleton, situated on the side of Tray Cliff, between Mam Tor (1,700 feet high) and the Winnats (1,350 feet). This ancient fluorite mine has been worked since the time of the Romans, and is near to the Odlin lead-mine, which they excavated. The numerous caves and underground passages are at different levels, which are connected by flights of stone steps. The Blue John ore is calcium fluorite united with an oxide of manganese, and is becoming a rare mineral. A valuable vase made of it is to be seen at Chatsworth House. Two "vasæ murrhinæ" of the same material were unearthed at Pompeii. A lofty and nearly circular cavern, known as Lord Mulgrave's dining-room, and a crystal cavern were visited, the latter 250 feet high, the sides sparkling with minute calcite crystals. The corridors had their sides covered with fossil remains imbedded in the limestone. Each of the party was presented by Mr. Royse with a specimen of this unique and interesting ore, of which there are as many as fourteen different varieties, which when ground and polished are transparent by transmitted light. The visit proved most enjoyable.

Trade Notes.

MESSRS. C. J. HEWLETT & SON, Charlotte Street, E.C., will close their premises on Saturday, June 29, on the occasion of the annual outing of their staff.

THE SANITAS COMPANY (LIMITED), of Letchford's Buildings, Bethnal Green, E., have issued the eleventh edition of their booklet, giving a general account of the Sanitas disinfectants, sanitary appliances, and other manufactures. There is also some useful information given in relation to the use of disinfectants generally, how they act, the connection between microbes and disease, and the qualities of chemical disinfectants. The numerous products of the company are fully described, with useful hints and directions for use.

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C.: June 27.

STOCKTAKING has interfered with business this week and orders for drugs and chemicals are mostly retail. The market in heavy chemicals is very quiet, and there seems little hope of a substantial improvement yet awhile; prospects would probably be brighter if an advance in caustic soda should occur. Citric acid is offering at easier rates again owing to lack of business; cream of tartar, however, keeps firm at unchanged rates. German refined camphor has been reduced owing to lower prices for the crude material. In essential oils there is no movement of importance. American peppermint, however, continues to advance on advices from New York. Oil of lemon is easier again, and otto of rose is likely to be higher this season, as reports received this week confirm those previously issued as regards a less crop than that of last year. The cinchona-auctions on Tuesday went off well considering the depressed state of the quinine-market. The following are the principal alterations of the week:—

Higher	Firmer	Easier	Lower
Oil, peppermint (Amer.)	Chamomiles	Acid, citric	Camphor (Germ.)
Opium		Ammonia sulphate	Tragacanth
Pimento		Gum arabic (Pers.)	
		Oil, lemon	

Arrivals.

The following drugs, &c., have arrived at the principal ports of the United Kingdom from June 21 to 26, both inclusive:—Arrowroot (@ Grenada) 65, (@ Cape Town) 342; arsenic (@ Oporto) 70; camphor (@ Hamburg), 153 tubs; "balsams" (@ Bahia), 40 cs.; castor oil (E.I.), 69 pkgs., (Ital.) 50; cocaine, crude (@ Callao), 6; cocoa-butter, 107 bbls.; cod-liver oil (@ Bergen) 19, (@ Aalesund) 205; coriander-seed, 329; cinchona (@ Colombo), 58; cumin-seed (Morocco), 135; cuscus, 11; drugs (@ Hamburg), 16 cs.; essential oils (@ Messina), 87 pkgs.; fennel-seed (@ Salonica), 2,053; fenugreek-seed, 100; galls (Persian), 1,247; ginger (@ Corinto) 25, (@ Jamaica) 292, (@ Havre) 2, (@ Bombay) 172 bgs. 33 cs.; gum arabic (@ Alexandria) 243 pkgs., (@ Bombay) 352 pkgs.; gum tragacanth, 33; honey (Jam.) 58, (Chil.) 34; insect-flowers, 18; insect-powder, 45; lime-juice (@ Dominica) 16, (@ Jam.) 25; lime oil (W.I.), 8; manna, 4; medicines (@ Cartagena), 47; mustard oil (@ Calcutta) 105; musk (@ Shanghai), 3; nux vomica (@ Calcutta), 926; oils, essential (@ Palermo), 143; opium (@ Calcutta) 61, (@ Hong-Kong) 124, (@ Smyrna) 122; orris (Ital.), 101; quicksilver (Ital.), 60; rose oil (@ Bombay), 3 pots; saffron, 2; sarsaparilla (@ N.Y.), 5; scammony-root (@ Marseilles), 16; senna (@ Suez) 6 cs. 12 bbls., (@ Bombay) 183; sbellac, 826 cwt.; squills, 3; tamarinds (@ Antigua) 26, (@ Barbados) 20; turmeric (@ Calcutta) 10, (@ Madras) 338, (@ Bombay) 175; wax, bees' (E.I.) 53, (@ Tangier) 7, (@ Mogador) 195, (Aust.) 14, (W.C.A.) 12.

Cinchona in Java.

Mr. F. L. Seely, of St. Louis, Mo., who communicated to the *C. & D.*, of May 25, an illustrated article on the cinchona-plantations in Madras, now sends us a lengthy M3. on "The Growth of Cinchona and Manufacture of Quinine in Java," which we hope to print in an early issue, with the accompanying photographs taken on the spot by Mr. Seely. Meanwhile we may give a rough outline of his observations. About 25,000 acres of Java is under cinchona. The centre of industry is the town of

Bandong, about eight hours' ride from Batavia. It contains about 1,000 Dutch and probably 60,000 native inhabitants. Mr. Seely made a number of trips to the plantations which lie in different directions around Bandong, ranging from nine to thirty miles distant. He saw the cinchona growing in all its stages. The seed is planted in nurseries (not glass covered), and have to be covered with leaf-shelters to keep off the rays of the sun. Both ledger-seed and succirubra-seed are planted, and the ledger is grafted on the succirubra for the reason that the ledger does not grow well in the soil, while the red-bark tree prospers. The little succirubra-tree is allowed to grow about 3 feet high and the ledger not quite so high. The tender shoots of the ledger are cut up into pieces about 6 inches long, each having two buds, and after being trimmed to a wedge-shape, are inserted in a little slip made in the side of the succirubra. This is covered up with wax and bound with a piece of banana-leaf, whereupon, after a short time, the wound heals and the little ledger-shoot comes out in leaf; then the tall top of the little succirubra-tree is cut off and the tree is transplanted. It is allowed to grow until it is 6 years old, when it is sawed off at the roots, divested of its bark, and a new tree planted near by. Native women then beat the bark off the tree, which is then partly dried in the sun before being put into the ovens. Pharmaceutical bark is usually dried entirely in the sun. After drying, the bark is rough ground and packed in bags of 100 kilos. each; 60 per cent. of the Java bark is exported, and the remaining 10 per cent. is manufactured into quinine at Bandong; this 10 per cent. means 1,000,000 oz. of quinine per year, and will soon be raised to 20 per cent, as they are now doubling the capacity of the factory. Mr. Seely visited the factory, and his photographs include some taken in it. Dr. A. R. Von Linge is the manager and head chemist of the factory. Mr. Seely saw them producing about 4,000 oz. of quinine a day, which he could not distinguish when placed among the best-known European brands. When the bark reaches the factory every parcel is assayed, and natives mix the different lots to average them. Tons of bark are ground up every day. It is exhausted by the petroleum method. The crystallisation is done by a process invented by Dr. Von Linge, which enables them to regulate the conditions of the drying-room. The crystallising-building is the most perfect specimen of absolute cleanliness Mr. Seely has ever seen. Before the quinine goes to Batavia it is analysed by a Government official, and at Batavia is sold by auction. The factory has no interest in the sales, as it does no commercial business except with the planter. A sum of \$2 per kilo. is paid for manufacturing-costs by the planter. The auctions in Batavia are carried on by the house of Messrs Tiedeman & Van Kerchem.

Heavy Chemicals.

[These prices are for market centres other than London.]

A general slackness in the all-round demand on home and export account for both main and miscellaneous products still continues to be the principal prevailing feature of the heavy-chemical market, and conditions are much the same at the main centres. On the Tyne, owing to this being the "Race Holiday-week," works are closed, and manufacturers are taking advantage of same to get necessary repairs to plant, &c., attended to. Orders for deliveries against existing contracts are scarcely up to the usual standard.

SULPHATE OF AMMONIA continues quiet, and is again somewhat lower: Beckton, 10*l.* 15*s.*; Beckton terms, 10*l.* 3*s.* 9*d.*; Leith, 10*l.* 7*s.* 6*d.*; London, 10*l.* 6*s.* 3*d.*; and Hull, 10*l.* 5*s.*

WHITE POWDERED ARSENIC continues to maintain a firmer tone at 16*l.* to 16*l.* 5*s.* per ton Garston.

SATIN WHITE in fair request, and price steady at 4*l.* 15*s.* to 5*l.* 5*s.* per ton, free on rails, in usual casks.

TIN CRYSTALS in moderate demand at 8*½d.* to 8*¾d.* per lb.

ALUMINA PRODUCTS show little fluctuation from recent figures, and general demand is only moderate. Crystal alum, loose lump, 5*l.* to 5*l.* 5*s.* per ton; lump in tiers, 5*l.* 5*s.* to 5*l.* 10*s.* per ton; and ground in bags, 5*l.* 12*s.* 6*d.* to 5*l.* 17*s.* 6*d.* per ton. Sulphate of alumina, purest white and best makes, practically free of iron, 85*s.* to 92*s.* 6*d.* per ton, free on rails in casks, with customary allowances for bags and loose slabs. Aluminous cake, 57*s.* 6*d.* to 65*s.* per ton. Alumino-ferric, 57*s.* 6*d.* to 67*s.* 6*d.* per ton, according to condition and delivery. Hydrate of alumina, highest percentage Al₂O₃, and purest quality, 11*l.* 15*s.* to 12*l.* 5*s.* per ton in large casks. Hydrate of alumina, purest pulp, dried, 37*s.* 6*d.* to 38*s.* 6*d.* per cwt. in casks; ground, 38*s.* to 39*s.* per cwt. Hydrate of alumina, special pulp, 12*s.* 6*d.* to 15*s.*, according to quantity. Aluminate of soda, high strength Al₂O₃, 37*s.* 6*d.* to 40*s.* per cwt. Carbonate of alumina, 35*s.* to 37*s.* 6*d.* per cwt., according to quantity. Chloride-of-alumina solution, 13*s.* to 15*s.* per cwt., in barrels.

Liverpool Drug Market.

Liverpool, June 27.

CASTOR OIL.—Sales from the quay of good seconds Calcutta have been effected at 3*½d.*, but owners of store parcels are asking 3*¾d.* to 3*¾d.* per lb. First-pressure French has been selling

in quantity at 3*d.* per lb. ex quay, and 3½*d.* to 3¾*d.* in store. First pressure English is obtainable at 3¾*d.* per lb.

AFRICAN GINGER.—This is slightly weaker in price for quay parcels, and 31*s.* 6*d.* to 32*s.* 6*d.* per cwt. has been asked for good quality. Monrovia has been offering in the neighbourhood of 25*s.* to 26*s.* per cwt. from the quay.

TURPS has stiffened up during the week, and sales have been made at 28*s.* 3*d.* to 28*s.* 6*d.* per cwt.

QUILLARIA-BARK.—Further sales have been made at 13*l.* 5*s.* per ton, and holders are asking 13*l.* 7*s.* 6*d.* for lots of 2 to 5 tons.

CHILLIES (S.L.).—No further arrivals of new crop have taken place, and holders of the limited stocks here are now asking 55*s.* per cwt.

COPPER SULPHATE.—Steady at 22*l.* to 22*l.* 10*s.* per ton.

IRISH MOSS.—Sales of good common dry are reported in quantity at 9*l.* per ton. Common moist is selling from the quay at 6*l.*

SPERMACETI (CHILIAN).—Twenty-five cases were offered at auction. Importers' idea of value was 1*s.* 2*d.* per lb., but there were no bids forthcoming.

BEESEWAX.—Ten cwt. red to yellow Chilian have been sold at 7*l.* 5*s.* to 7*l.* 10*s.* per cwt. A lot of 18 sacks mixed quality Chilian found buyers at 7*l.* per cwt.

LINSEED OIL is still quiet. Liverpool make is now offering at 34*s.* to 34*s.* 6*d.* cwt. in export casks.

HONEY.—Ten cases good liquid Jamaican were offered at auction, but no bid was forthcoming above 20*s.* per cwt. Importers' ideas were in the neighbourhood of 25*s.* Chilian and Californian are not notably changed since our last report.

COPAIBA.—The small remaining stocks of Maranham in first hands have been cleared off the market on private terms, and the value has again reverted to 2*s.* 3*d.* to 2*s.* 4*d.* per lb.

German Drug Market.

Hamburg, June 25.

Our drug-market shows very little business at present, and only very few articles meet with interest from the buyers.

ANTIMONY is again easier at 32*m.* per 100 kilos.

BALSAM PERU is quiet at 11½*m.* per kilo.

CONDURANGO is quiet and a shade lower at 95*m.* per 100 kilos.

CUMIN-SEED is steady at 63*m.* for 100 kilos. for Maltese.

COCA-LEAVES are very firm at 325*m.* to 350*m.* per 100 kilos.

ERGOT is unchanged, with Russian offering at 445*m.*, and Spanish at 480*m.* per 100 kilos.

MENTHOL is dull of sale at 24*m.* per kilo.

JAPAN WAX is firm, 63*m.* per 100 kilos. paid.

QUININE is quiet, with second-hands offering at 45*m.* per kilo.

SUGAR-OF-MILK is also quiet at 81*m.* per 100 kilos.

SENEGA is tending firmer with more inquiry, holders asking 325*m.* per 100 kilos.

SANTONIN firm at 35*m.* per kilo.

WORMSEED is also firm, from 65*m.* to 75*m.* per 100 kilos.

OILS.—Cod-liver is tending firmer, with non-congealing oil offering at 66*m.* per barrel, cottonseed advancing, linseed dull, castor without demand.

PEPPERMINT OIL improving; HGH is quoted 6.30*m.* per lb. and Japanese ditto 6½*m.* per kilo.

London Markets.

ACID, CITRIC.—Dull of sale and easier, with sellers of English make at 1*s.* 3¾*d.* per lb.

ARNICA-FLOWERS.—The new crop is expected about the middle of July, but nothing definite can be said regarding it or prices.

ARROWROOT.—At auction on Wednesday fine St. Vincent's in tins, partly sold at 3½*d.* per lb., good to fine, in barrels being bought in at 1¾*d.* to 2¾*d.*

CAMPHOR.—German refiners have reduced their quotations 1*d.* per lb., and now quote ton lots of hells and tablets for prompt delivery 2*s.* 1*d.*, ½-ton lots and upwards 2*s.* 1½*d.*, and smaller wholesale quantities 2*s.* 1¾*d.* per lb. The reduction is said to have been brought about by the lower prices at which crude is offered. English refiners make no alteration.

CHAMOMILES.—Agents' advices state that the crop of Belgian flowers will be a small one, and that owing to the drought it will be about three to four weeks later than usual. Holders on this market are therefore not anxious sellers, and nothing is offered under 76*s.* per cwt., London terms, for fairly good quality.

CINCHONA.—At the auction on Tuesday fair supplies were catalogued, and the bulk was disposed of at or since the sale at unchanged rates compared with the previous London auction, the unit being unaltered at 2*d.*

The following table shows the amount of bark offered and sold:—

	Packages offered.	Packages sold.
East Indian cinchona ...	1,175	873
South American cinchona ...	1,054	944
Java cinchona ...	399	338
Ceylon cinchona ...	301	235
African cinchona ...	80	40
	3,009	2,430

The following table shows the approximate quantities of bark purchased by the principal buyers:—

	Lbs.
Agents for the Brunswick factory...	97,744
Agents for the Mannheim and Amsterdam factories ...	95,206
Agents for the Frankfort and Stuttgart factories	62,974
Agents for the American factory ...	62,003
Agents for the Imperial factory ...	38,480
Messrs. Howards & Sons ...	21,171
Agents for the Paris factory ...	12,000
Druggists, &c. ...	27,583
Total quantity sold ...	417,161
Bought in or withdrawn ...	138,127
Total quantity offered ...	555,288

The prices paid were as follows:—

AFRICAN.—Fair quill, 6¼*d.* to 7*d.*; broken ditto and chips, 5¼*d.* per lb.

SOUTH AMERICAN.—Cuprea (756 packages offered and sold) at 2¾*d.* to 3¼*d.*. Bolivian cultivated Calisaya fair quill, 9¼*d.* to 10*d.*; good, 10¼*d.* to 10¾*d.*; and rich ditto, 1*s.* to 1*s.* 0¼*d.* per lb.; 21 bales broken and damaged red quill, 4½*d.* to 5*d.* per lb.

JAVA.—Ledgeriana stem chips, 10¾*d.* to 1*s.* 3¾*d.*, and root, 11¾*d.*. Succirubra stem chips, 5¾*d.* to 6¾*d.* per lb.

CEYLON.—Ledgeriana stem chips, 9¾*d.*, and branch, 5¾*d.*; red stem chips and shavings, 2¾*d.* to 6*d.*

EAST INDIAN.—Ledgeriana good stem chips, 9¾*d.*; chips and shavings, 6¾*d.* to 7¾*d.*; Ledgeriana root, 6¾*d.*; and hybrid chips, 3¾*d.* to 4¾*d.* per lb. Succirubra, stem chips and shavings, 3*d.* to 6¼*d.*; and root, 3½*d.* to 8¼*d.*. Officialis, chips and shavings, good to fine, 6¼*d.* to 1*s.* 0¼*d.*; ordinary to fair, 2½*d.* to 6*d.*; renewed ditto, 4½*d.* to 1*s.* 0¾*d.*; branch, 2¾*d.* to 5¾*d.*; and root, 6¾*d.* to 9¾*d.* per lb.

The auctions to be held at Amsterdam on July 13 will consist of 3,898 packages Ledgeriana, Officialis, Calisaya, and hybrid, and 258 cases and 393 hales Succirubra. The stock in first hands at Amsterdam on June 26 consisted of 2,381 packages Government bark, and 5,288 packages private bark, including the quantity to be offered in the auction.

CREAM OF TARTAR.—In fair demand at unchanged rates, especially for 95-per-cent. powder, which is quoted 76*s.* per cwt.; 98 per cent. is quoted 79*s.*, and 99 to 100 per cent. 80*s.* per cwt.

ELEMI.—The 5 cases which were not in time for last week's auction have now arrived, and part has been disposed of at, it is said, 140*s.* per cwt.

ERGOT.—A small business is reported in Russian at 2*s.* 3*d.* per lb. spot.

GALLS.—Holders of Persian are firmer in their ideas, which fact has checked business, and some of the stock has been withdrawn waiting a more favourable market. Good to fine blue have been sold at 52*s.* 6*d.* to 55*s.*, and green, at 49*s.* to 50*s.*, with further buyers at these figures, but no sellers.

GENTIAN.—Stocks on the Trieste market are exhausted, and quotations cannot be given until the new crop arrives. Here 15*s.* per cwt., c.i.f., is quoted.

GUINEA-GRAINS are still held for the high figure of 150*s.* per cwt., and only small quantities are available.

GUM ARABIC.—In so-called Persian insoluble sorts a good business had been done at rather easier prices, including unworked at 13*s.* 6*d.* to 15*s.* 6*d.* for common, and 18*s.* for small pale.

HENBANE.—Lower prices are now asked for German leaves, one importer quoting from 36*s.* per cwt., c.i.f., and upwards, according to quality.

MENTHOL.—Quiet at last week's reduction. Part of the parcel sold in auction last week changed hands after the sale at a profit.

OIL, BERGAMOT.—Keeps firm, at from 8s. 6d. to 9d. per lb., c.i.f., according to make.

OIL, CASTOR, is firm, East Indian seconds being quoted 4½d. per lb. on the spot; Belgian is also firm, at 29s. 6d. per cwt. for spot stuff, and Hull make, for July delivery, 28s. 9d. for firsts, and 27s. 9d. for seconds, ex wharf. Medicinal Italian is quoted 33s., c.i.f., and French, in cases, 37s. 6d.; and barrels, 35s. to 36s., c.i.f.

OIL, COD-LIVER.—During the last few days (our Bergen correspondent writes) there has been a rather good demand for the crude cod-liver oil at rising prices, but so far this has not influenced the quotation for non-freezing oil, which remains quiet at 64s. per barrel, f.o.b. A rise in the prices should therefore be probable also for this quality. The Finmarken fishing may be expected to close in about a week. The total exports from Bergen to date amount to 5,385 barrels, against 3,726 barrels at the same time last year.

OIL, EUCALYPTUS.—Slow of sale; B.P. quality is obtainable at 1s. 6d. to 1s. 7d. per lb. in lots of 5 cwt., and 1s. 8d. in smaller wholesale quantities.

OIL, LEMON.—Still tending easier, guaranteed quality being obtainable at 3s. 2d. per lb., c.i.f.

OIL, PEPPERMINT.—Advices from New York continue to quote higher prices. One agent has advanced his price for American HGH to 6s. 8d. per lb., net, c.i.f., but it is doubtful if this figure has been paid; on the spot there are sellers at 6s. 9d.

OPIMUM.—A fair quantity of fine Persian has changed hands at 12s. per lb., and there are further sellers at this figure. Turkey opium is quiet.

SMYRNA, June 14.—The market opened very firm this week, with an upward tendency, and large buyers could not secure a single case of opium at last week's prices. All sellers withdrew their goods, having been ordered by their clients to do so, owing to heavy rains which have been falling of late all over the country. The damp atmosphere and soil has been retarding the poppy from arriving at maturity, which, at a critical time like this, is a serious item to the crop. Native speculators, on getting confirmation of this by their interior agents, came forward, and, offering 2d. to 3d. per lb. above last week's prices, secured some 20 cases current talequale at 8s. 6d. to 8s. 8d., as to quality. Soon after several shippers followed suit, and before noon to-day the sales amounted to 60 cases, of various manufacturing qualities, at 8s. 7d. to 9s. per lb., f.o.b. Sellers keep reserved and tenacious, and it is with great difficulty they can be induced to part with their holdings. Owing to this many of the orders have been left over for next week.

CONSTANTINOPLE, June 21.—Heavy rains have again fallen this week, and have done a certain amount of damage, and in consequence prices are rising. It is now practically an absolute certainty that the crop cannot yield over 5,000 cases at the outside, and if rain continues it may be still less. The sales amount to three cases "druggists" at 8s. 7d. per lb. The market closes firm.

OTTO OF ROSE.—A circular has been issued by Mr. H. A. Holstein, of Constantinople, stating that the Bulgarian rose-crop will probably be about 30 per cent. less than that of last year, but as yet it is too early to form a correct estimate. This practically confirms our previous report of May 25.

QUININE.—An extremely dull market in spite of the good result of the London bark-auction on Tuesday. During the week a little German sulphate has been sold at 1s. 4½d. per oz. for December delivery, and there are sellers of October at 1s. 4d. Spot is nominal at 1s. 3½d. per oz.

ROSE-PETALS.—French of the new crop is being offered at from 2s. 2d. to 3s. per lb., c.i.f., according to quality and holder.

SANTONIN is very firm, and any alteration will be in an upward direction. Indeed, there was a rumour that it had been advanced, but it proved to be incorrect.

SEEDS.—The new crop of Morocco *Cumin* is arriving, and is of good quality; the demand being small, the quotation is nominal at 28s. to 30s. per cwt. New-crop Malta is offering at 30s. per cwt., c.i.f. terms. *Coriander* slow at 11s. 6d. to 12s. 6d. per cwt. *Canary*, at auction on Wednesday some earthy Barbary sold at 28s. to 28s. 6d. per quarter. The spot quotation for Turkish is 32s. *Fennugreek* neglected; 6s. to 6s. 6d. per cwt. is asked. *Linseed* firm. *Caraway* unchanged.

SHELLAC.—After an interval of six weeks the auctions were resumed on Tuesday, when the small supply of 410 cases offered, of which about 60 cases sold at about steady prices for second orange. Good pale, but blocky, sold at 64s.; fair bright red, 60s.; and common red livery block, 55s. to 56s.; garnet A.C., fine, but slightly cakey, 61s.; dull weak blocky, 48s. Privately business on the spot has been small, including orange TN. at 60s. per cwt.

SPICES.—Business is slow, but prices are fairly steady. At the auctions on Wednesday, which were small, *Cochin Ginger* was firm, partly selling at 33s. to 33s. 6d. per cwt. for washed rough, and at 33s. for cuttings; medium and small cut was bought in at 57s. per cwt. African was held for 35s.; Japan is offering at 33s.; Bengal is scarce and 37s. 6d. is asked. Jamaica sold at 35s. to 40s. per cwt. for common to good common. Zanzibar *Cloves* are slow at 3½d. to 3¾d. per lb. for future delivery. Dark Ceylon sold at 3¾d., and good bright Penang were bought in at 8½d. Good dark Natal *Capsicums* sold at 70s. per cwt.; fine being bought in at 90s. *Pimento* dearer, common sold at 2½d., ordinary at 2¾d., fair at 2¾d. per lb., while good to fine was bought in at 3d. to 3½d. Black *Pepper* steady, but little doing. Good Ceylon sold at 6d. per lb. East India *esta'e* quality was bought in at 6d. to 6½d. Singapore is quoted 6½d. on the spot, and 6½d. to 6 d. to arrive. Singapore white was bought in at 10d. per lb. for good washed, and Penang at 8½d. Ceylon sold at 8½d. to 9d. for ordinary brownish, at 10d. for good, and at 11d. for extra fine.

STRAMONIUM-LEAVES of the new crop are quoted 36s. per cwt. for fine quality.

TRAGACANTH.—The market is weak, and prices still tend downwards. Concessions having been made by holders a fair business has been put through, mostly in Persian gum of the common and lower qualities.

VANILLA.—An auction was held on Wednesday, when about 240 tins were offered by one broker only, of which about 50 sold, the demand being very limited. Fine chocolate, 7½ inches to 8 inches, sold at 22s. to 23s. 6d.; 6 inches to 7 inches, 19s. to 22s.; and 4 inches to 4½ inches, 17s.; medium brown, 14s. 6d. to 15s. 6d.; ordinary ditto, 14s. to 14s. 6d.; and common brown and split, 11s. 6d. to 13s. 6d. per lb.

Cablegrams.

SMYRNA, June 25, 11.10 A.M.—Since our telegram of last week about 50 cases have been placed for American account at an advance of 2d. per lb. This is owing to the continued unsatisfactory news concerning the new crop, and present indications point to still higher prices.

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HAMBURG, June 27, 2.10 P.M.—American HGH oil of peppermint is firmer at 6½m. per lb. Lycopodium is improving. Quinine is dull at 45m. per kilo.

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NEW YORK, June 27.—The market here is very quiet. Opium is dull at \$318 per lb. Camphor is easier at 59½c. per lb. Balsam Peru is higher at 31c. per lb. Citronella oil is easier at 19c. Buchu firm at 35c. Morphine has declined 10c., and green Kombé *strophanthus*-seed 15c. per lb.

Coming Events.

Wednesday, July 3.

Chemists' Assistants' Union, Horseshoe Hotel, Tottenham Court Road, W., at 9 P.M. Annual meeting, when Mr. A. C. Wootton, member of the Council of the Pharmaceutical Society, will deliver an address.

Thursday, July 18.

Proprietary Articles Trade Association. Annual meeting at Chingford, followed by cold luncheon, drive in Epping Forest, and tea. Tickets, 8s. (single) and 15s. (double), which include train-fares, can be had on application to Mr. W. S. Glyn-Jones, 2 and 3 Stonecutter street, E.C.

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